

# 氧化锌压敏电阻器：TVR 系列 浪涌保护用插件型



## ■ 特性

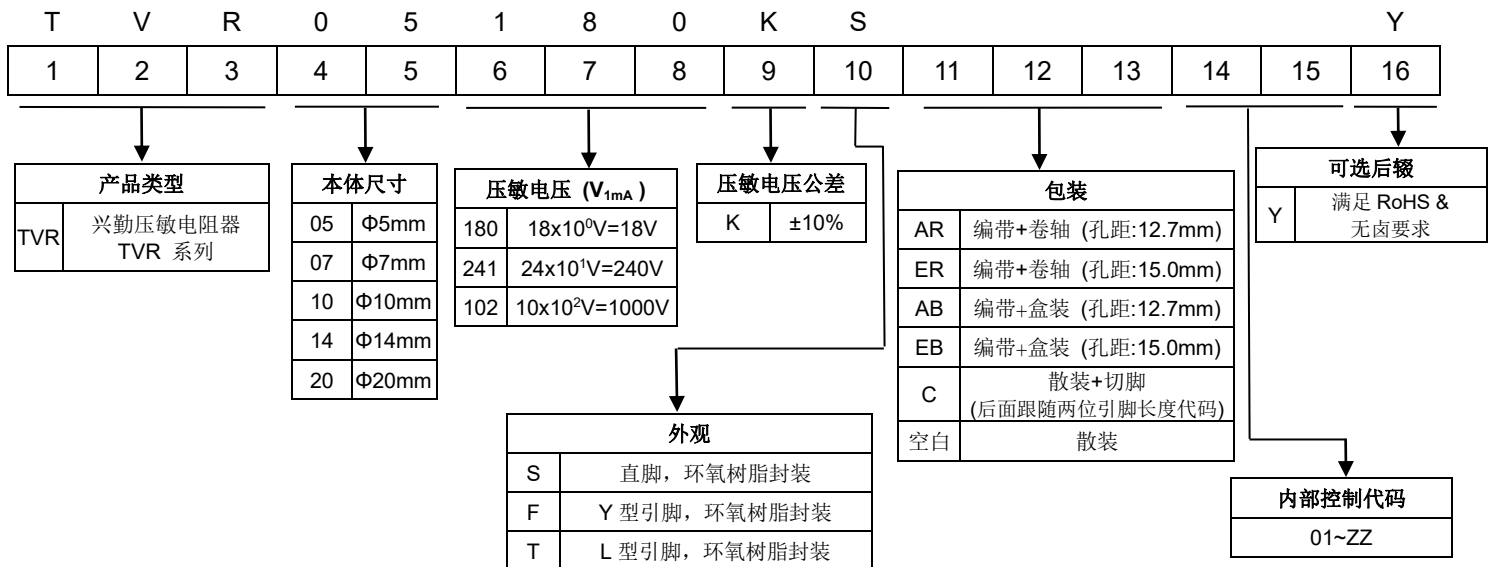
1. 符合RoHS
2. 可提供无卤要求的系列产品
3. 本体尺寸：Φ5mm ~ Φ20mm
4. 宽工作电压范围：11Vac ~ 1000Vac
5. 工作温度范围：-40°C ~ +105°C  
储存温度范围：-40°C ~ +125°C
6. 安规认证：UL 1449 4<sup>th</sup> / cUL / TUV/ VDE/ CQC



## ■ 用途

1. 电源供应器
2. 家用电器
3. 工业设备
4. 通信设备
5. 智能控制型电表
6. 电力线智能通讯设备
7. 照明
8. 光伏系统

## ■ 编码规则



备注：包装及内部控制代码未使用时，第 11 码为可选后缀。

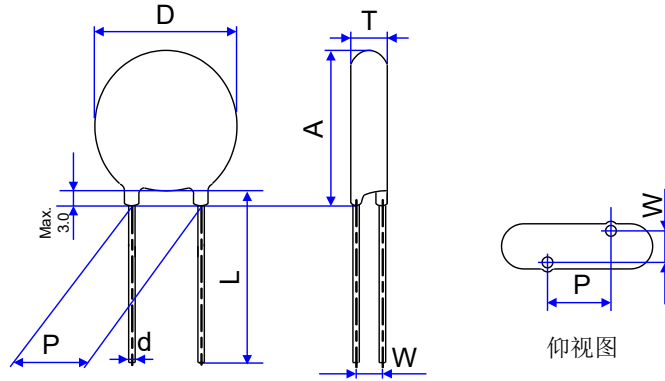
# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



### ■ 结构与尺寸

#### ■ S 型 (直脚)



(单位：mm)

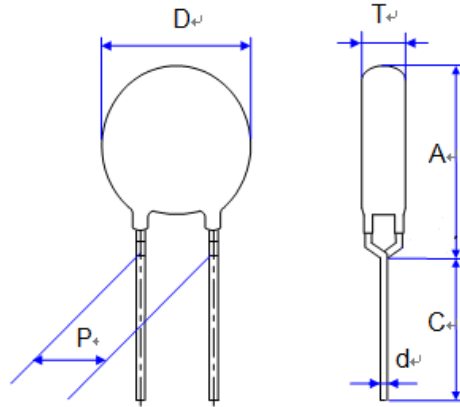
| 系列    | D                                     | Lmin. | d        | P  | Amax.  | Tmax.       | W |
|-------|---------------------------------------|-------|----------|--|--|-------------|---|
| TVR05 | 5.0~7.0                               | 26.5  | 0.6±0.02 | 5.0±0.5 (TVR180-561 适用)<br>5.0±1.0 (TVR621-751 适用)     | 9.0  | 请见<br>电气特性表 |   |
| TVR07 | 6.5~9.0                               | 26.5  | 0.6±0.02 | 5.0±0.5 (TVR180-561 适用)<br>5.0±1.0 (TVR621-821 适用)     | 11.0 (TVR07180-621 适用)<br>11.5 (TVR07681-821 适用)                           |             |   |
| TVR10 | 9.5~12.5<br>9.5~13.5<br>(TVR10182 适用) | 26.5  | 0.8±0.02 | 7.5±0.5 (TVR10180-561 适用)<br>7.5±1.0 (TVR10621-182 适用) | 15.0 (TVR10180-112 适用)<br>15.5 (TVR10122-182 适用)                           |             |   |
| TVR14 | 13.5~16.0                             | 26.5  | 0.8±0.02 | 7.5±0.5 (TVR14180-561 适用)<br>7.5±1.0 (TVR14621-182 适用) | 18.5 (TVR14180-511 适用)<br>19.0 (TVR14561-182 适用)                           |             |   |
| TVR20 | 19.5~22.0                             | 22.5  | 1.0±0.02 | 10±1   | 25.5 (TVR20180-511 适用)<br>26.0 (TVR20561-112 适用)<br>26.5 (TVR20122-182 适用) |             |   |

# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



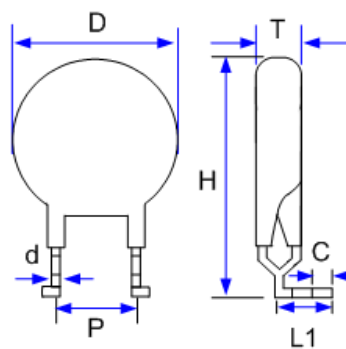
### ■ F型 (Y型引脚)



(单位：mm)

| 系列    | D                                     | Cmin. | d        | P  | Amax. | Tmax.   |
|-------|---------------------------------------|-------|----------|--|-------|---------|
| TVR05 | 5.0~7.0                               | 20    | 0.6±0.02 | 5.0±0.5 (TVR05180-561 适用)<br>5.0±1.0 (TVR05621-751 适用) | 9.5   | 请见电气特性表 |
| TVR07 | 6.5~9.0                               | 20    | 0.6±0.02 | 5.0±0.5 (TVR07180-561 适用)<br>5.0±1.0 (TVR07621-821 适用) | 11.5  |         |
| TVR10 | 9.5~12.5<br>9.5~13.5<br>(TVR10182 适用) | 20    | 0.8±0.02 | 7.5±0.5 (TVR10180-561 适用)<br>7.5±1.0 (TVR10621-182 适用) | 16.0  |         |
| TVR14 | 13.5 ~16.0                            | 20    | 0.8±0.02 | 7.5±0.5 (TVR14180-561 适用)<br>7.5±1.0 (TVR14621-182 适用) | 19.0  |         |
| TVR20 | 19.5~22.0                             | 20    | 1.0±0.02 | 10±1   | 26.5  |         |

### ■ T型 (L型引脚)



(单位：mm)

| 系列    | D                                     | C       | d        | P     | Hmax. | L1     | Tmax.   |
|-------|---------------------------------------|---------|----------|-------|-------|--------|---------|
| TVR10 | 9.5~12.5<br>9.5~13.5<br>(TVR10182 适用) | 3.8±0.8 | 0.8±0.02 | 7.5±1 | 20.0  | 7.0±1  | 请见电气特性表 |
| TVR14 | 13.5 ~16.0                            |         | 0.8±0.02 | 7.5±1 | 23.5  | 10.0±1 |         |
| TVR20 | 19.5~22                               |         | 1.0±0.02 | 10±1  | 30.5  | 9.0±1  |         |

# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



### ■ 电气特性

#### 05mm系列

| 型号       | 压敏电压<br>(@ 1mA DC) | 最大连续<br>工作电压         |                 | 最大限制电压<br>(8/20 $\mu$ s) |                | 最大<br>冲击电流<br>(8/20 $\mu$ s) | 额定<br>功率 | 最大能量<br>(10/1000 $\mu$ s) | 产品尺寸             |                  |                |
|----------|--------------------|----------------------|-----------------|--------------------------|----------------|------------------------------|----------|---------------------------|------------------|------------------|----------------|
|          | V <sub>1mA</sub>   | V <sub>AC(rms)</sub> | V <sub>DC</sub> | V <sub>P</sub>           | I <sub>P</sub> | I <sub>max</sub>             | P        | W <sub>max</sub>          | T <sub>min</sub> | T <sub>max</sub> | W<br>$\pm 1.0$ |
|          | (V)                | (V)                  | (V)             | (V)                      | (A)            | (A)                          | (W)      | (J)                       | (mm)             |                  |                |
| TVR05180 | 18 (16~20)         | 11                   | 14              | 40                       | 1.0            | 100                          | 0.01     | 0.4                       | 2.2              | 3.9              | 1.5            |
| TVR05220 | 22 (20~24)         | 14                   | 18              | 48                       | 1.0            | 100                          | 0.01     | 0.5                       | 2.2              | 4.1              | 1.5            |
| TVR05270 | 27 (24~30)         | 17                   | 22              | 60                       | 1.0            | 100                          | 0.01     | 0.6                       | 2.4              | 4.3              | 1.5            |
| TVR05330 | 33 (30~36)         | 20                   | 26              | 73                       | 1.0            | 100                          | 0.01     | 0.8                       | 2.6              | 4.5              | 1.5            |
| TVR05390 | 39 (35~43)         | 25                   | 31              | 86                       | 1.0            | 100                          | 0.01     | 0.9                       | 2.6              | 4.6              | 1.5            |
| TVR05470 | 47 (42~52)         | 30                   | 38              | 104                      | 1.0            | 100                          | 0.01     | 1.1                       | 2.3              | 4.2              | 1.5            |
| TVR05560 | 56 (50~62)         | 35                   | 45              | 123                      | 1.0            | 100                          | 0.01     | 1.3                       | 2.6              | 4.3              | 1.5            |
| TVR05680 | 68 (61~75)         | 40                   | 56              | 150                      | 1.0            | 100                          | 0.01     | 1.6                       | 2.8              | 4.6              | 1.5            |
| TVR05820 | 82 (74~90)         | 50                   | 65              | 145                      | 5.0            | 400                          | 0.1      | 2.5                       | 2.0              | 3.9              | 1.5            |
| TVR05101 | 100 (90~110)       | 60                   | 85              | 175                      | 5.0            | 400                          | 0.1      | 3.0                       | 2.1              | 4.1              | 1.6            |
| TVR05121 | 120 (108~132)      | 75                   | 100             | 210                      | 5.0            | 400                          | 0.1      | 4.0                       | 2.5              | 4.3              | 1.8            |
| TVR05151 | 150 (135~165)      | 95                   | 125             | 260                      | 5.0            | 400                          | 0.1      | 4.8                       | 2.0              | 4.6              | 1.6            |
| TVR05181 | 180 (162~198)      | 115                  | 150             | 315                      | 5.0            | 400                          | 0.1      | 5.9                       | 2.0              | 3.9              | 1.4            |
| TVR05201 | 200 (180~220)      | 130                  | 170             | 355                      | 5.0            | 400                          | 0.1      | 6.5                       | 2.1              | 4.0              | 1.5            |
| TVR05221 | 220 (198~242)      | 140                  | 180             | 380                      | 5.0            | 400                          | 0.1      | 7.0                       | 2.1              | 4.0              | 1.5            |
| TVR05241 | 240 (216~264)      | 150                  | 200             | 415                      | 5.0            | 400                          | 0.1      | 8.0                       | 2.3              | 4.2              | 1.6            |
| TVR05271 | 270 (243~297)      | 175                  | 225             | 475                      | 5.0            | 400                          | 0.1      | 8.5                       | 2.4              | 4.4              | 1.7            |
| TVR05301 | 300 (270~330)      | 195                  | 250             | 525                      | 5.0            | 400                          | 0.1      | 8.5                       | 2.7              | 4.4              | 1.9            |
| TVR05331 | 330 (297~363)      | 215                  | 275             | 585                      | 5.0            | 400                          | 0.1      | 9.2                       | 2.8              | 4.5              | 2.0            |
| TVR05361 | 360 (324~396)      | 230                  | 300             | 620                      | 5.0            | 400                          | 0.1      | 10                        | 2.9              | 4.6              | 2.1            |
| TVR05391 | 390 (351~429)      | 250                  | 320             | 675                      | 5.0            | 400                          | 0.1      | 12                        | 3.1              | 4.8              | 2.3            |
| TVR05431 | 430 (387~473)      | 275                  | 350             | 745                      | 5.0            | 400                          | 0.1      | 13                        | 3.0              | 5.1              | 2.3            |
| TVR05471 | 470 (423~517)      | 300                  | 385             | 810                      | 5.0            | 400                          | 0.1      | 15                        | 3.2              | 5.2              | 2.4            |
| TVR05511 | 510 (459~561)      | 320                  | 410             | 878                      | 5.0            | 400                          | 0.1      | 16                        | 3.4              | 5.4              | 2.6            |
| TVR05561 | 560 (504~616)      | 350                  | 450             | 962                      | 5.0            | 400                          | 0.1      | 18                        | 3.6              | 5.5              | 2.8            |
| TVR05621 | 620 (558~682)      | 395                  | 510             | 1050                     | 5.0            | 400                          | 0.1      | 18                        | 3.9              | 5.9              | 3.0            |
| TVR05681 | 680 (612~748)      | 420                  | 560             | 1120                     | 5.0            | 400                          | 0.1      | 18                        | 4.1              | 6.2              | 3.2            |
| TVR05751 | 750 (675~825)      | 465                  | 615             | 1240                     | 5.0            | 400                          | 0.1      | 18                        | 4.4              | 6.4              | 3.5            |

# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



### 07mm系列

| 型号       | 压敏电压<br>(@ 1mA DC) | 最大连续<br>工作电压         |                 | 最大限制电压<br>(8/20 $\mu$ s) |                | 最大<br>冲击电流<br>(8/20 $\mu$ s) | 额定<br>功率 | 最大能量<br>(10/1000 $\mu$ s) | 产品尺寸             |                  |                |
|----------|--------------------|----------------------|-----------------|--------------------------|----------------|------------------------------|----------|---------------------------|------------------|------------------|----------------|
|          | V <sub>1mA</sub>   | V <sub>AC(rms)</sub> | V <sub>DC</sub> | V <sub>P</sub>           | I <sub>P</sub> | I <sub>max</sub>             | P        | W <sub>max</sub>          | T <sub>min</sub> | T <sub>max</sub> | W<br>$\pm$ 1.0 |
|          | (V)                | (V)                  | (V)             | (V)                      | (A)            | (A)                          | (W)      | (J)                       | (mm)             |                  |                |
| TVR07180 | 18 (16~20)         | 11                   | 14              | 36                       | 2.5            | 250                          | 0.02     | 0.9                       | 2.2              | 3.9              | 1.3            |
| TVR07220 | 22 (20~24)         | 14                   | 18              | 43                       | 2.5            | 250                          | 0.02     | 1.1                       | 2.2              | 4.1              | 1.4            |
| TVR07270 | 27 (24~30)         | 17                   | 22              | 53                       | 2.5            | 250                          | 0.02     | 1.4                       | 2.4              | 4.3              | 1.5            |
| TVR07330 | 33 (30~36)         | 20                   | 26              | 65                       | 2.5            | 250                          | 0.02     | 1.7                       | 2.6              | 4.5              | 1.7            |
| TVR07390 | 39 (35~43)         | 25                   | 31              | 77                       | 2.5            | 250                          | 0.02     | 2.1                       | 2.6              | 4.6              | 1.8            |
| TVR07470 | 47 (42~52)         | 30                   | 38              | 93                       | 2.5            | 250                          | 0.02     | 2.5                       | 2.3              | 4.2              | 1.9            |
| TVR07560 | 56 (50~62)         | 35                   | 45              | 110                      | 2.5            | 250                          | 0.02     | 3.1                       | 2.6              | 4.3              | 2.0            |
| TVR07680 | 68 (61~75)         | 40                   | 56              | 135                      | 2.5            | 250                          | 0.02     | 3.6                       | 2.3              | 4.6              | 2.1            |
| TVR07820 | 82 (74~90)         | 50                   | 65              | 135                      | 10             | 1200                         | 0.25     | 5.5                       | 2.0              | 3.9              | 1.5            |
| TVR07101 | 100 (90~110)       | 60                   | 85              | 165                      | 10             | 1200                         | 0.25     | 6.5                       | 2.1              | 4.1              | 1.6            |
| TVR07121 | 120 (108~132)      | 75                   | 100             | 200                      | 10             | 1200                         | 0.25     | 7.8                       | 2.5              | 4.3              | 1.8            |
| TVR07151 | 150 (135~165)      | 95                   | 125             | 250                      | 10             | 1200                         | 0.25     | 9.7                       | 2.0              | 4.6              | 1.6            |
| TVR07181 | 180 (162~198)      | 115                  | 150             | 300                      | 10             | 1200                         | 0.25     | 11.7                      | 2.0              | 3.9              | 1.4            |
| TVR07201 | 200 (180~220)      | 130                  | 170             | 340                      | 10             | 1200                         | 0.25     | 13                        | 2.1              | 4.0              | 1.5            |
| TVR07221 | 220 (198~242)      | 140                  | 180             | 360                      | 10             | 1200                         | 0.25     | 14                        | 2.1              | 4.0              | 1.5            |
| TVR07241 | 240 (216~264)      | 150                  | 200             | 395                      | 10             | 1200                         | 0.25     | 15                        | 2.3              | 4.2              | 1.6            |
| TVR07271 | 270 (243~297)      | 175                  | 225             | 455                      | 10             | 1200                         | 0.25     | 18                        | 2.4              | 4.4              | 1.7            |
| TVR07301 | 300 (270~330)      | 195                  | 250             | 500                      | 10             | 1200                         | 0.25     | 21                        | 2.7              | 4.4              | 1.9            |
| TVR07331 | 330 (297~363)      | 215                  | 275             | 550                      | 10             | 1200                         | 0.25     | 23                        | 2.8              | 4.5              | 2.0            |
| TVR07361 | 360 (324~396)      | 230                  | 300             | 595                      | 10             | 1200                         | 0.25     | 25                        | 2.9              | 4.6              | 2.1            |
| TVR07391 | 390 (351~429)      | 250                  | 320             | 650                      | 10             | 1200                         | 0.25     | 25                        | 3.1              | 4.8              | 2.3            |
| TVR07431 | 430 (387~473)      | 275                  | 350             | 710                      | 10             | 1200                         | 0.25     | 28                        | 3.0              | 5.1              | 2.3            |
| TVR07471 | 470 (423~517)      | 300                  | 385             | 775                      | 10             | 1200                         | 0.25     | 30                        | 3.2              | 5.2              | 2.4            |
| TVR07511 | 510 (459~561)      | 320                  | 410             | 845                      | 10             | 1200                         | 0.25     | 33                        | 3.4              | 5.4              | 2.6            |
| TVR07561 | 560 (504~616)      | 350                  | 450             | 930                      | 10             | 1200                         | 0.25     | 33                        | 3.6              | 5.5              | 2.8            |
| TVR07621 | 620 (558~682)      | 395                  | 510             | 1020                     | 10             | 1200                         | 0.25     | 35                        | 3.9              | 5.9              | 3.0            |
| TVR07681 | 680 (612~748)      | 420                  | 560             | 1120                     | 10             | 1200                         | 0.25     | 35                        | 4.1              | 6.2              | 3.2            |
| TVR07751 | 750 (675~825)      | 465                  | 615             | 1235                     | 10             | 1200                         | 0.25     | 38                        | 4.4              | 6.4              | 3.5            |
| TVR07821 | 820 (738~902)      | 510                  | 670             | 1355                     | 10             | 1200                         | 0.25     | 42                        | 4.5              | 6.4              | 3.2            |

# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



### 10mm系列

| 型号       | 压敏电压<br>(@ 1mA DC) | 最大连续<br>工作电压         |                 | 最大限制电压<br>(8/20 $\mu$ s) |                | 最大<br>冲击电流<br>(8/20 $\mu$ s) | 额定<br>功率 | 最大能量<br>(10/1000 $\mu$ s) | 产品尺寸             |                  |                |
|----------|--------------------|----------------------|-----------------|--------------------------|----------------|------------------------------|----------|---------------------------|------------------|------------------|----------------|
|          | V <sub>1mA</sub>   | V <sub>AC(rms)</sub> | V <sub>DC</sub> | V <sub>P</sub>           | I <sub>P</sub> | I <sub>max</sub>             | P        | W <sub>max</sub>          | T <sub>min</sub> | T <sub>max</sub> | W<br>$\pm$ 1.0 |
|          | (V)                | (V)                  | (V)             | (V)                      | (A)            | (A)                          | (W)      | (J)                       | (mm)             |                  |                |
| TVR10180 | 18 (16~20)         | 11                   | 14              | 36                       | 5.0            | 500                          | 0.05     | 2.1                       | 2.6              | 4.3              | 1.3            |
| TVR10220 | 22 (20~24)         | 14                   | 18              | 43                       | 5.0            | 500                          | 0.05     | 2.5                       | 2.6              | 4.5              | 1.4            |
| TVR10270 | 27 (24~30)         | 17                   | 22              | 53                       | 5.0            | 500                          | 0.05     | 3.0                       | 2.8              | 4.7              | 1.5            |
| TVR10330 | 33 (30~36)         | 20                   | 26              | 65                       | 5.0            | 500                          | 0.05     | 4.0                       | 2.9              | 4.9              | 1.7            |
| TVR10390 | 39 (35~43)         | 25                   | 31              | 77                       | 5.0            | 500                          | 0.05     | 4.6                       | 2.7              | 5.1              | 1.8            |
| TVR10470 | 47 (42~52)         | 30                   | 38              | 93                       | 5.0            | 500                          | 0.05     | 5.5                       | 2.7              | 4.5              | 1.8            |
| TVR10560 | 56 (50~62)         | 35                   | 45              | 110                      | 5.0            | 500                          | 0.05     | 7.0                       | 3.0              | 4.7              | 1.9            |
| TVR10680 | 68 (61~75)         | 40                   | 56              | 135                      | 5.0            | 500                          | 0.05     | 8.2                       | 2.6              | 5.0              | 2.2            |
| TVR10820 | 82 (74~90)         | 50                   | 65              | 135                      | 25             | 2500                         | 0.4      | 12                        | 2.4              | 4.3              | 1.6            |
| TVR10101 | 100 (90~110)       | 60                   | 85              | 165                      | 25             | 2500                         | 0.4      | 15                        | 2.6              | 4.5              | 1.8            |
| TVR10121 | 120 (108~132)      | 75                   | 100             | 200                      | 25             | 2500                         | 0.4      | 18                        | 2.9              | 4.7              | 2.0            |
| TVR10151 | 150 (135~165)      | 95                   | 125             | 250                      | 25             | 2500                         | 0.4      | 22                        | 2.4              | 5.0              | 1.8            |
| TVR10181 | 180 (162~198)      | 115                  | 150             | 300                      | 25             | 2500                         | 0.4      | 27                        | 2.4              | 4.3              | 1.6            |
| TVR10201 | 200 (180~220)      | 130                  | 170             | 340                      | 25             | 2500                         | 0.4      | 30                        | 2.5              | 4.4              | 1.7            |
| TVR10221 | 220 (198~242)      | 140                  | 180             | 360                      | 25             | 2500                         | 0.4      | 32                        | 2.5              | 4.4              | 1.7            |
| TVR10241 | 240 (216~264)      | 150                  | 200             | 395                      | 25             | 2500                         | 0.4      | 35                        | 2.7              | 4.6              | 1.8            |
| TVR10271 | 270 (243~297)      | 175                  | 225             | 455                      | 25             | 2500                         | 0.4      | 40                        | 2.8              | 4.8              | 1.9            |
| TVR10301 | 300 (270~330)      | 195                  | 250             | 500                      | 25             | 2500                         | 0.4      | 40                        | 3.1              | 4.8              | 2.1            |
| TVR10331 | 330 (297~363)      | 215                  | 275             | 550                      | 25             | 2500                         | 0.4      | 43                        | 3.2              | 4.9              | 2.2            |
| TVR10361 | 360 (324~396)      | 230                  | 300             | 595                      | 25             | 2500                         | 0.4      | 47                        | 3.3              | 5.0              | 2.3            |
| TVR10391 | 390 (351~429)      | 250                  | 320             | 650                      | 25             | 2500                         | 0.4      | 60                        | 3.5              | 5.2              | 2.5            |
| TVR10431 | 430 (387~473)      | 275                  | 350             | 710                      | 25             | 2500                         | 0.4      | 65                        | 3.4              | 5.5              | 2.5            |
| TVR10471 | 470 (423~517)      | 300                  | 385             | 775                      | 25             | 2500                         | 0.4      | 70                        | 3.6              | 5.6              | 2.6            |
| TVR10511 | 510 (459~561)      | 320                  | 410             | 845                      | 25             | 2500                         | 0.4      | 70                        | 3.8              | 5.8              | 2.8            |
| TVR10561 | 560 (504~616)      | 350                  | 450             | 930                      | 25             | 2500                         | 0.4      | 70                        | 4.0              | 5.9              | 3.0            |
| TVR10621 | 620 (558~682)      | 395                  | 510             | 1020                     | 25             | 2500                         | 0.4      | 70                        | 4.3              | 6.3              | 3.2            |
| TVR10681 | 680 (612~748)      | 420                  | 560             | 1120                     | 25             | 2500                         | 0.4      | 70                        | 4.5              | 6.6              | 3.4            |
| TVR10751 | 750 (675~825)      | 465                  | 615             | 1235                     | 25             | 2500                         | 0.4      | 75                        | 4.8              | 6.8              | 3.7            |
| TVR10781 | 780(702~858)       | 485                  | 640             | 1300                     | 25             | 2500                         | 0.4      | 78                        | 4.8              | 6.8              | 3.8            |
| TVR10821 | 820 (738~902)      | 510                  | 670             | 1355                     | 25             | 2500                         | 0.4      | 85                        | 4.9              | 6.8              | 3.4            |
| TVR10911 | 910 (819~1001)     | 550                  | 745             | 1500                     | 25             | 2500                         | 0.4      | 93                        | 5.3              | 7.2              | 3.7            |
| TVR10102 | 1000 (900~1100)    | 625                  | 825             | 1650                     | 25             | 2500                         | 0.4      | 102                       | 5.5              | 7.5              | 4.0            |
| TVR10112 | 1100 (990~1210)    | 680                  | 895             | 1815                     | 25             | 2500                         | 0.4      | 115                       | 5.7              | 8.0              | 4.3            |
| TVR10122 | 1200 (1080~1320)   | 725                  | 975             | 1980                     | 25             | 2500                         | 0.4      | 125                       | 6.0              | 8.1              | 5.2            |
| TVR10142 | 1400 (1260~1540)   | 820                  | 1140            | 2300                     | 25             | 2500                         | 0.4      | 145                       | 6.6              | 8.7              | 6.0            |
| TVR10162 | 1600 (1440~1760)   | 910                  | 1300            | 2630                     | 25             | 2500                         | 0.4      | 165                       | 7.1              | 9.8              | 6.7            |
| TVR10182 | 1800 (1620~1980)   | 1000                 | 1465            | 2950                     | 25             | 2500                         | 0.4      | 185                       | 7.8              | 10.3             | 7.4            |

# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



### 14mm系列

| 型号       | 压敏电压<br>(@ 1mA DC) | 最大连续<br>工作电压         |                 | 最大限制电压<br>(8/20 $\mu$ s) |                | 最大<br>冲击电流<br>(8/20 $\mu$ s) | 额定<br>功率 | 最大能量<br>(10/1000 $\mu$ s) | 产品尺寸             |                  |                |
|----------|--------------------|----------------------|-----------------|--------------------------|----------------|------------------------------|----------|---------------------------|------------------|------------------|----------------|
|          | V <sub>1mA</sub>   | V <sub>AC(rms)</sub> | V <sub>DC</sub> | V <sub>P</sub>           | I <sub>P</sub> | I <sub>max</sub>             | P        | W <sub>max</sub>          | T <sub>min</sub> | T <sub>max</sub> | W<br>$\pm$ 1.0 |
|          | (V)                | (V)                  | (V)             | (V)                      | (A)            | (A)                          | (W)      | (J)                       | (mm)             |                  |                |
| TVR14180 | 18 (16~20)         | 11                   | 14              | 36                       | 10             | 1000                         | 0.1      | 4.0                       | 2.6              | 4.3              | 1.3            |
| TVR14220 | 22 (20~24)         | 14                   | 18              | 43                       | 10             | 1000                         | 0.1      | 5.0                       | 2.6              | 4.5              | 1.4            |
| TVR14270 | 27 (24~30)         | 17                   | 22              | 53                       | 10             | 1000                         | 0.1      | 6.0                       | 2.8              | 4.7              | 1.5            |
| TVR14330 | 33 (30~36)         | 20                   | 26              | 65                       | 10             | 1000                         | 0.1      | 7.5                       | 2.9              | 4.9              | 1.7            |
| TVR14390 | 39 (35~43)         | 25                   | 31              | 77                       | 10             | 1000                         | 0.1      | 8.6                       | 2.7              | 5.1              | 1.8            |
| TVR14470 | 47 (42~52)         | 30                   | 38              | 93                       | 10             | 1000                         | 0.1      | 10                        | 2.7              | 4.5              | 1.8            |
| TVR14560 | 56 (50~62)         | 35                   | 45              | 110                      | 10             | 1000                         | 0.1      | 11                        | 3.0              | 4.7              | 1.9            |
| TVR14680 | 68 (61~75)         | 40                   | 56              | 135                      | 10             | 1000                         | 0.1      | 14                        | 3.1              | 5.0              | 2.2            |
| TVR14820 | 82 (74~90)         | 50                   | 65              | 135                      | 50             | 4500                         | 0.6      | 22                        | 2.4              | 4.3              | 1.6            |
| TVR14101 | 100 (90~110)       | 60                   | 85              | 165                      | 50             | 4500                         | 0.6      | 28                        | 2.6              | 4.5              | 1.8            |
| TVR14121 | 120 (108~132)      | 75                   | 100             | 200                      | 50             | 4500                         | 0.6      | 32                        | 2.9              | 4.7              | 2.0            |
| TVR14151 | 150 (135~165)      | 95                   | 125             | 250                      | 50             | 4500                         | 0.6      | 40                        | 2.4              | 5.0              | 1.8            |
| TVR14181 | 180 (162~198)      | 115                  | 150             | 300                      | 50             | 4500                         | 0.6      | 52                        | 2.4              | 4.3              | 1.6            |
| TVR14201 | 200 (180~220)      | 130                  | 170             | 340                      | 50             | 4500                         | 0.6      | 57                        | 2.5              | 4.4              | 1.7            |
| TVR14221 | 220 (198~242)      | 140                  | 180             | 360                      | 50             | 4500                         | 0.6      | 60                        | 2.5              | 4.4              | 1.7            |
| TVR14241 | 240 (216~264)      | 150                  | 200             | 395                      | 50             | 4500                         | 0.6      | 63                        | 2.7              | 4.6              | 1.8            |
| TVR14271 | 270 (243~297)      | 175                  | 225             | 455                      | 50             | 4500                         | 0.6      | 70                        | 2.8              | 4.8              | 1.9            |
| TVR14301 | 300 (270~330)      | 195                  | 250             | 500                      | 50             | 4500                         | 0.6      | 78                        | 3.1              | 4.8              | 2.1            |
| TVR14331 | 330 (297~363)      | 215                  | 275             | 550                      | 50             | 4500                         | 0.6      | 85                        | 3.2              | 4.9              | 2.2            |
| TVR14361 | 360 (324~396)      | 230                  | 300             | 595                      | 50             | 4500                         | 0.6      | 93                        | 3.3              | 5.0              | 2.3            |
| TVR14391 | 390 (351~429)      | 250                  | 320             | 650                      | 50             | 4500                         | 0.6      | 100                       | 3.5              | 5.2              | 2.5            |
| TVR14431 | 430 (387~473)      | 275                  | 350             | 710                      | 50             | 4500                         | 0.6      | 115                       | 3.4              | 5.5              | 2.5            |
| TVR14471 | 470 (423~517)      | 300                  | 385             | 775                      | 50             | 4500                         | 0.6      | 125                       | 3.6              | 5.6              | 2.6            |
| TVR14511 | 510 (459~561)      | 320                  | 410             | 845                      | 50             | 4500                         | 0.6      | 125                       | 3.8              | 5.8              | 2.8            |
| TVR14561 | 560 (504~616)      | 350                  | 450             | 930                      | 50             | 4500                         | 0.6      | 125                       | 4.0              | 5.9              | 3.0            |
| TVR14621 | 620 (558~682)      | 395                  | 510             | 1020                     | 50             | 4500                         | 0.6      | 125                       | 4.3              | 6.3              | 3.2            |
| TVR14681 | 680 (612~748)      | 420                  | 560             | 1120                     | 50             | 4500                         | 0.6      | 130                       | 4.5              | 6.6              | 3.4            |
| TVR14751 | 750 (675~825)      | 465                  | 615             | 1235                     | 50             | 4500                         | 0.6      | 143                       | 4.8              | 6.8              | 3.7            |
| TVR14821 | 820 (738~902)      | 510                  | 670             | 1355                     | 50             | 4500                         | 0.6      | 157                       | 4.9              | 6.8              | 3.4            |
| TVR14911 | 910 (819~1001)     | 550                  | 745             | 1500                     | 50             | 4500                         | 0.6      | 175                       | 5.3              | 7.2              | 3.7            |
| TVR14102 | 1000 (900~1100)    | 625                  | 825             | 1650                     | 50             | 4500                         | 0.6      | 190                       | 5.5              | 7.5              | 4.0            |
| TVR14112 | 1100 (990~1210)    | 680                  | 895             | 1815                     | 50             | 4500                         | 0.6      | 213                       | 5.6              | 8.0              | 4.3            |
| TVR14122 | 1200 (1080~1320)   | 725                  | 975             | 1980                     | 50             | 4500                         | 0.6      | 230                       | 6.0              | 8.1              | 5.2            |
| TVR14142 | 1400 (1260~1540)   | 820                  | 1140            | 2300                     | 50             | 4500                         | 0.6      | 250                       | 6.6              | 8.7              | 6.0            |
| TVR14162 | 1600 (1440~1760)   | 910                  | 1300            | 2630                     | 50             | 4500                         | 0.6      | 315                       | 7.1              | 9.8              | 6.7            |
| TVR14182 | 1800 (1620~1980)   | 1000                 | 1465            | 2950                     | 50             | 4500                         | 0.6      | 354                       | 7.8              | 10.3             | 7.4            |

# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



### 20mm系列

| 型号       | 压敏电压<br>(@ 1mA DC) | 最大连续<br>工作电压         |                 | 最大限制电压<br>(8/20 $\mu$ s) |                | 最大<br>冲击电流<br>(8/20 $\mu$ s) | 额定<br>功率 | 最大能量<br>(10/1000 $\mu$ s) | 产品尺寸             |                  |                |
|----------|--------------------|----------------------|-----------------|--------------------------|----------------|------------------------------|----------|---------------------------|------------------|------------------|----------------|
|          | V <sub>1mA</sub>   | V <sub>AC(rms)</sub> | V <sub>DC</sub> | V <sub>P</sub>           | I <sub>P</sub> | I <sub>max</sub>             | P        | W <sub>max</sub>          | T <sub>min</sub> | T <sub>max</sub> | W<br>$\pm$ 1.0 |
|          | (V)                | (V)                  | (V)             | (V)                      | (A)            | (A)                          | (W)      | (J)                       | (mm)             |                  |                |
| TVR20180 | 18 (16~20)         | 11                   | 14              | 36                       | 20             | 2000                         | 0.2      | 11                        | 3.0              | 4.7              | 1.3            |
| TVR20220 | 22 (20~24)         | 14                   | 18              | 43                       | 20             | 2000                         | 0.2      | 14                        | 3.0              | 4.9              | 1.4            |
| TVR20270 | 27 (24~30)         | 17                   | 22              | 53                       | 20             | 2000                         | 0.2      | 18                        | 3.2              | 5.1              | 1.5            |
| TVR20330 | 33 (30~36)         | 20                   | 26              | 65                       | 20             | 2000                         | 0.2      | 23                        | 3.4              | 5.3              | 1.7            |
| TVR20390 | 39 (35~43)         | 25                   | 31              | 77                       | 20             | 2000                         | 0.2      | 26                        | 3.1              | 5.5              | 1.7            |
| TVR20470 | 47 (42~52)         | 30                   | 38              | 93                       | 20             | 2000                         | 0.2      | 33                        | 3.1              | 4.9              | 1.8            |
| TVR20560 | 56 (50~62)         | 35                   | 45              | 110                      | 20             | 2000                         | 0.2      | 41                        | 3.4              | 5.1              | 2.0            |
| TVR20680 | 68 (61~75)         | 40                   | 56              | 135                      | 20             | 2000                         | 0.2      | 46                        | 3.5              | 5.4              | 2.2            |
| TVR20820 | 82 (74~90)         | 50                   | 65              | 135                      | 100            | 6500                         | 1.0      | 48                        | 2.8              | 4.7              | 1.8            |
| TVR20101 | 100 (90~110)       | 60                   | 85              | 165                      | 100            | 6500                         | 1.0      | 51                        | 3.1              | 4.9              | 2.0            |
| TVR20121 | 120 (108~132)      | 75                   | 100             | 200                      | 100            | 6500                         | 1.0      | 55                        | 3.3              | 5.1              | 2.2            |
| TVR20151 | 150 (135~165)      | 95                   | 125             | 250                      | 100            | 6500                         | 1.0      | 70                        | 2.8              | 5.4              | 2.0            |
| TVR20181 | 180 (162~198)      | 115                  | 150             | 300                      | 100            | 6500                         | 1.0      | 84                        | 2.8              | 4.7              | 1.8            |
| TVR20201 | 200 (180~220)      | 130                  | 170             | 340                      | 100            | 6500                         | 1.0      | 95                        | 2.9              | 4.8              | 1.9            |
| TVR20221 | 220 (198~242)      | 140                  | 180             | 360                      | 100            | 6500                         | 1.0      | 100                       | 2.9              | 4.8              | 1.9            |
| TVR20241 | 240 (216~264)      | 150                  | 200             | 395                      | 100            | 6500                         | 1.0      | 108                       | 3.1              | 5.0              | 2.0            |
| TVR20271 | 270 (243~297)      | 175                  | 225             | 455                      | 100            | 6500                         | 1.0      | 127                       | 3.2              | 5.2              | 2.1            |
| TVR20301 | 300 (270~330)      | 195                  | 250             | 500                      | 100            | 6500                         | 1.0      | 136                       | 3.5              | 5.2              | 2.3            |
| TVR20331 | 330 (297~363)      | 215                  | 275             | 550                      | 100            | 6500                         | 1.0      | 150                       | 3.6              | 5.3              | 2.4            |
| TVR20361 | 360 (324~396)      | 230                  | 300             | 595                      | 100            | 6500                         | 1.0      | 163                       | 3.7              | 5.4              | 2.5            |
| TVR20391 | 390 (351~429)      | 250                  | 320             | 650                      | 100            | 6500                         | 1.0      | 180                       | 3.9              | 5.6              | 2.7            |
| TVR20431 | 430 (387~473)      | 275                  | 350             | 710                      | 100            | 6500                         | 1.0      | 190                       | 3.8              | 5.9              | 2.7            |
| TVR20471 | 470 (423~517)      | 300                  | 385             | 775                      | 100            | 6500                         | 1.0      | 220                       | 4.0              | 6.0              | 2.8            |
| TVR20511 | 510 (459~561)      | 320                  | 410             | 845                      | 100            | 6500                         | 1.0      | 220                       | 4.2              | 6.2              | 3.0            |
| TVR20561 | 560 (504~616)      | 350                  | 450             | 930                      | 100            | 6500                         | 1.0      | 220                       | 4.4              | 6.3              | 3.2            |
| TVR20621 | 620 (558~682)      | 395                  | 510             | 1020                     | 100            | 6500                         | 1.0      | 220                       | 4.7              | 6.7              | 3.4            |
| TVR20681 | 680 (612~748)      | 420                  | 560             | 1120                     | 100            | 6500                         | 1.0      | 230                       | 4.9              | 7.0              | 3.6            |
| TVR20751 | 750 (675~825)      | 465                  | 615             | 1235                     | 100            | 6500                         | 1.0      | 255                       | 5.2              | 7.2              | 3.9            |
| TVR20781 | 780(702~858)       | 485                  | 640             | 1300                     | 100            | 6500                         | 1.0      | 265                       | 5.2              | 7.2              | 3.9            |
| TVR20821 | 820 (738~902)      | 510                  | 670             | 1355                     | 100            | 6500                         | 1.0      | 282                       | 5.3              | 7.2              | 3.6            |
| TVR20911 | 910 (819~1001)     | 550                  | 745             | 1500                     | 100            | 6500                         | 1.0      | 310                       | 5.7              | 7.6              | 3.9            |
| TVR20102 | 1000 (900~1100)    | 625                  | 825             | 1650                     | 100            | 6500                         | 1.0      | 342                       | 6.1              | 7.9              | 4.2            |
| TVR20112 | 1100 (990~1210)    | 680                  | 895             | 1815                     | 100            | 6500                         | 1.0      | 383                       | 6.2              | 8.4              | 4.5            |
| TVR20122 | 1200 (1080~1320)   | 725                  | 975             | 1980                     | 100            | 6500                         | 1.0      | 415                       | 6.4              | 8.5              | 5.4            |
| TVR20142 | 1400 (1260~1540)   | 820                  | 1140            | 2300                     | 100            | 6500                         | 1.0      | 480                       | 7.0              | 9.1              | 6.2            |
| TVR20162 | 1600 (1440~1760)   | 910                  | 1300            | 2630                     | 100            | 6500                         | 1.0      | 550                       | 7.5              | 10.2             | 6.9            |
| TVR20182 | 1800 (1620~1980)   | 1000                 | 1465            | 2950                     | 100            | 6500                         | 1.0      | 620                       | 8.5              | 10.7             | 7.6            |







# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型







### ■ 安规认证

| 安规认证型号   | 认证机构  |   |   |   |
|----------|---|---|---|---|
|          |  |  |  |  |
|          | UL1449 4 <sup>th</sup><br>& cUL<br>(Preparing)                                    | EN/IEC 61051-1,<br>IEC 61051-2,<br>IEC 61051-2-2                                  | IEC 61051-1<br>IEC 61051-2<br>IEC 61051-2-2   | GB/T10193<br>GB/T10194  |
|          | E314979   | J50411784   | 5944  | CQC03001005165<br>CQC03001007654  |
| TVR05180 | √   | √   | √   | √   |
| TVR05220 | √   | √   | √   | √   |
| TVR05270 | √   | √   | √   | √   |
| TVR05330 | √   | √   | √   | √   |
| TVR05390 | √   | √   | √   | √   |
| TVR05470 | √   | √   | √   | √   |
| TVR05560 | √   | √   | √   | √   |
| TVR05680 | √   | √   | √   | √   |
| TVR05820 | √   | √   | √   | √   |
| TVR05101 | √   | √   | √   | √   |
| TVR05121 | √   | √   | √   | √   |
| TVR05151 | √   | √   | √   | √   |
| TVR05181 | √   | √   | √   | √   |
| TVR05201 | √   | √   | √   | √   |
| TVR05221 | √   | √   | √   | √   |
| TVR05241 | √   | √   | √   | √   |
| TVR05271 | √   | √   | √   | √   |
| TVR05301 | √   | √   | √   | √   |
| TVR05331 | √   | √   | √   | √   |
| TVR05361 | √   | √   | √   | √   |
| TVR05391 | √   | √   | √   | √   |
| TVR05431 | √   | √   | √   | √   |
| TVR05471 | √   | √   | √   | √   |
| TVR05511 | √   | √   | √   | √   |
| TVR05561 | √   | √   | √   | √   |
| TVR05621 | √   | √   | √   | √   |
| TVR05681 | √   | √   | √   | √   |
| TVR05751 | √   | √   |   | √   |

# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



| 安规认证型号   | 认证机构  |   |   |   |
|----------|---|---|---|---|
|          |  |  |  |            |
|          | UL1449 5 <sup>th</sup><br>& cUL   | EN/IEC 61051-1,<br>IEC 61051-2,<br>IEC 61051-2-2                                  | IEC 61051-1<br>IEC 61051-2<br>IEC 61051-2-2   | GB/T10193<br>GB/T10194  |
|          | E314979   | J50411784   | 5944  | 现行证书号:<br>CQC03001005165<br>CQC03001007654<br>新证书号: (见备注)<br>CQC18001199806<br>CQC18001199789 |
| TVR07180 | √   | √   | √   | √   |
| TVR07220 | √   | √   | √   | √   |
| TVR07270 | √   | √   | √   | √   |
| TVR07330 | √   | √   | √   | √   |
| TVR07390 | √   | √   | √   | √   |
| TVR07470 | √   | √   | √   | √   |
| TVR07560 | √   | √   | √   | √   |
| TVR07680 | √   | √   | √   | √   |
| TVR07820 | √   | √   | √   | √   |
| TVR07101 | √   | √   | √   | √   |
| TVR07121 | √   | √   | √   | √   |
| TVR07151 | √   | √   | √   | √   |
| TVR07181 | √   | √   | √   | √   |
| TVR07201 | √   | √   | √   | √   |
| TVR07221 | √   | √   | √   | √   |
| TVR07241 | √   | √   | √   | √   |
| TVR07271 | √   | √   | √   | √   |
| TVR07301 | √   | √   | √   | √   |
| TVR07331 | √   | √   | √   | √   |
| TVR07361 | √   | √   | √   | √   |
| TVR07391 | √   | √   | √   | √   |
| TVR07431 | √   | √   | √   | √   |
| TVR07471 | √   | √   | √   | √   |
| TVR07511 | √   | √   | √   | √   |
| TVR07561 | √   | √   | √   | √   |
| TVR07621 | √   | √   | √   | √   |
| TVR07681 | √   | √   | √   | √   |
| TVR07751 | √   | √   | √   | √   |
| TVR07821 | √   | √   | √   | √   |

备注:

1. CQC现行证书号只会保留至2019/12/31,于2020/1/1开始只有保留新证书号,请使用新证书号做为案件的申请

# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



| 安规认证型号   | 认证机构  |   |   |   |
|----------|---|---|---|---|
|          |  |  |            |  |
|          | UL1449 5 <sup>th</sup> & cUL  | EN/IEC 61051-1,<br>IEC 61051-2,<br>IEC 61051-2-2                                  | IEC 61051-1<br>IEC 61051-2<br>IEC 61051-2-2   | GB/T10193<br>GB/T10194  |
| E314979  | J50411784   | 5944  | 现行证书号:<br>CQC03001005165<br>CQC03001007654<br>新证书号: (见备注)<br>CQC18001200336<br>CQC18001199790 |   |
| TVR10180 | √   | √   | √   | √   |
| TVR10220 | √   | √   | √   | √   |
| TVR10270 | √   | √   | √   | √   |
| TVR10330 | √   | √   | √   | √   |
| TVR10390 | √   | √   | √   | √   |
| TVR10470 | √   | √   | √   | √   |
| TVR10560 | √   | √   | √   | √   |
| TVR10680 | √   | √   | √   | √   |
| TVR10820 | √   | √   | √   | √   |
| TVR10101 | √   | √   | √   | √   |
| TVR10121 | √   | √   | √   | √   |
| TVR10151 | √   | √   | √   | √   |
| TVR10181 | √   | √   | √   | √   |
| TVR10201 | √   | √   | √   | √   |
| TVR10221 | √   | √   | √   | √   |
| TVR10241 | √   | √   | √   | √   |
| TVR10271 | √   | √   | √   | √   |
| TVR10301 | √   | √   | √   | √   |
| TVR10331 | √   | √   | √   | √   |
| TVR10361 | √   | √   | √   | √   |
| TVR10391 | √   | √   | √   | √   |
| TVR10431 | √   | √   | √   | √   |
| TVR10471 | √   | √   | √   | √   |
| TVR10511 | √   | √   | √   | √   |
| TVR10561 | √   | √   | √   | √   |
| TVR10621 | √   | √   | √   | √   |
| TVR10681 | √   | √   | √   | √   |
| TVR10751 | √   | √   | √   | √   |
| TVR10781 | √   |   |   |   |
| TVR10821 | √   | √   | √   | √   |
| TVR10911 | √   | √   | √   | √   |
| TVR10102 | √   | √   | √   | √   |
| TVR10112 | √   | √   | √   | √   |
| TVR10122 | √   | √   | √   | √   |
| TVR10142 | √   | √   | √   | √   |
| TVR10162 | √   | √   | √   | √   |
| TVR10182 | √   | √   | √   | √   |

备注:  
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# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



| 安规认证型号   | 认证机构                            |  |                           |  |                           |   |                              |  |
|----------|---------------------------------|--|---------------------------|--|---------------------------|---|------------------------------|--|
|          |                                 |  |                           |  |                           |   |                              |  |
|          | UL1449 5 <sup>th</sup><br>& cUL | EN/IEC 61051-1,<br>IEC 61051-2,<br>IEC 61051-2-2 | IEC62368-1<br>Annex G.8.1 | EN/IEC 61051-1,<br>IEC 61051-2,<br>IEC 61051-2-2 | IEC62368-1<br>Annex G.8.1 | GB/T10193-1997<br>GB/T10194-1997  | GB8898-2011<br>GB4943.1-2011 |  |
|          | E314979                         | J50411784  |                           | 5944   |                           | 现行证书号:<br>CQC03001005165<br>CQC03001007654<br>新证书号: (见备注)<br>CQC18001199842<br>CQC18001198951 |                              |  |
| TVR14180 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14220 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14270 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14330 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14390 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14470 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14560 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14680 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14820 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14101 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14121 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14151 | √                               | √  |                           | √  |                           | √   |                              |  |
| TVR14181 | √                               | √  | √                         | √  | √                         | √   |                              |  |
| TVR14201 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14221 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14241 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14271 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14301 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14331 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14361 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14391 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14431 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14471 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14511 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14561 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14621 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14681 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14751 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14821 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14911 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14102 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14112 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14122 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14142 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14162 | √                               | √  | √                         | √  | √                         | √   | √                            |  |
| TVR14182 | √                               | √  | √                         | √  | √                         | √   | √                            |  |

备注:  
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# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



| 安规认证型号   | 认证机构                         |  |                        |  |                        |   |                              |  |
|----------|------------------------------|--|------------------------|--|------------------------|---|------------------------------|--|
|          |                              |  |                        |  |                        |   |                              |  |
|          | UL1449 5 <sup>th</sup> & cUL | EN/IEC 61051-1, IEC 61051-2, IEC 61051-2-2 | IEC62368-1 Annex G.8.1 | EN/IEC 61051-1, IEC 61051-2, IEC 61051-2-2 | IEC62368-1 Annex G.8.1 | GB/T10193-1997<br>GB/T10194-1997  | GB8898-2011<br>GB4943.1-2011 |  |
|          | E314979                      | J50411784                                  |                        | 5944                                       |                        | 现行证书号:<br>CQC03001005165<br>CQC03001007654<br>新证书号: (见备注)<br>CQC18001199807<br>CQC18001198952 |                              |  |
| TVR20180 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20220 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20270 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20330 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20390 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20470 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20560 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20680 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20820 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20101 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20121 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20151 | √                            | √  |                        | √  |                        | √   |                              |  |
| TVR20181 | √                            | √  | √                      | √  | √                      | √   |                              |  |
| TVR20201 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20221 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20241 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20271 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20301 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20331 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20361 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20391 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20431 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20471 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20511 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20561 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20621 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20681 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20751 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20781 | √                            |  |                        |  |                        |   |                              |  |
| TVR20821 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20911 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20102 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20112 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20122 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20142 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20162 | √                            | √  | √                      | √  | √                      | √   | √                            |  |
| TVR20182 | √                            | √  | √                      | √  | √                      | √   | √                            |  |

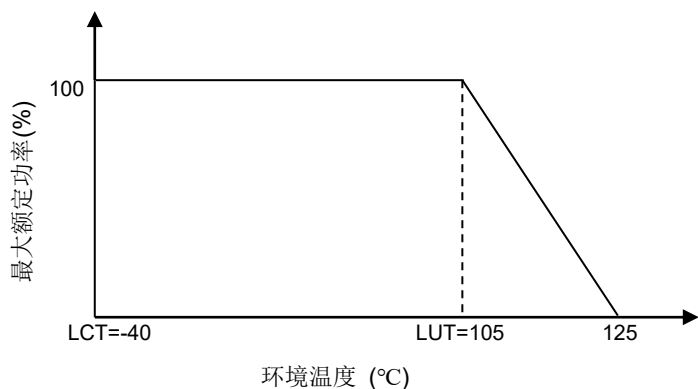
备注:  
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# 氧化锌压敏电阻：TVR 系列

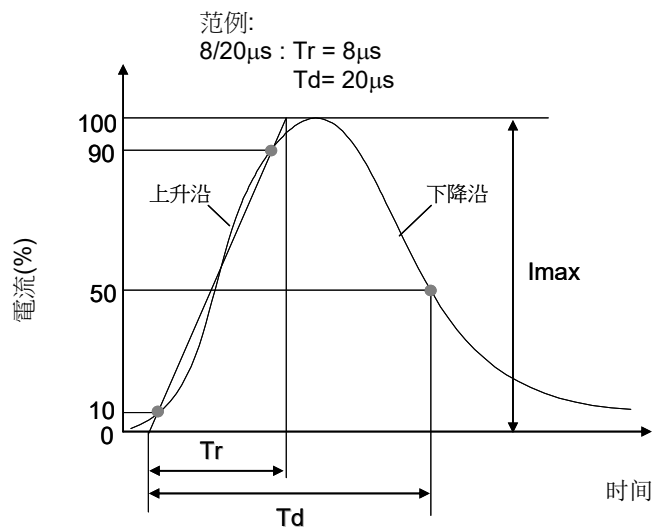
## 浪涌保护用插件型



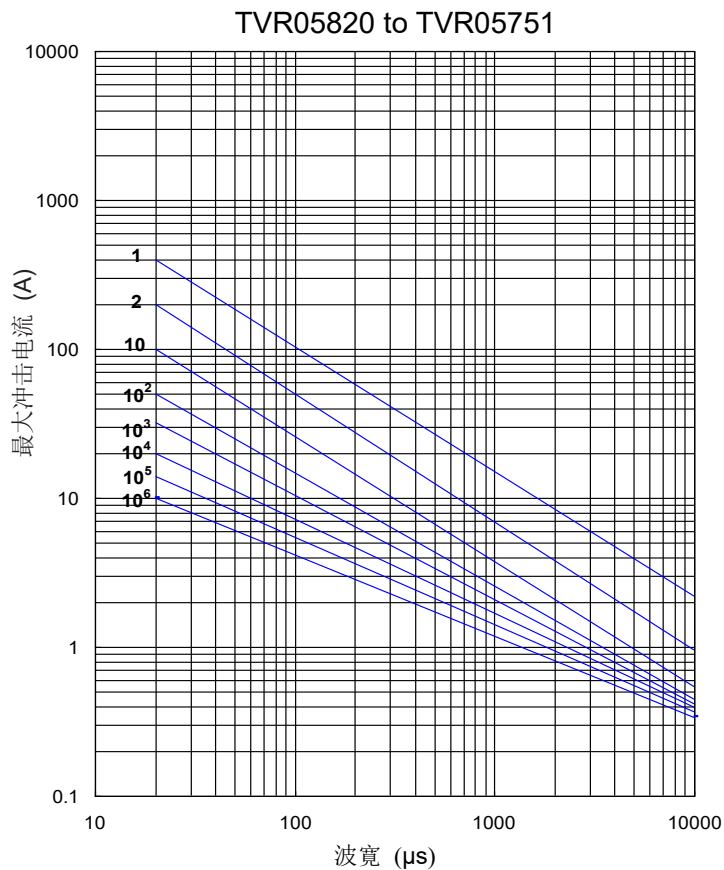
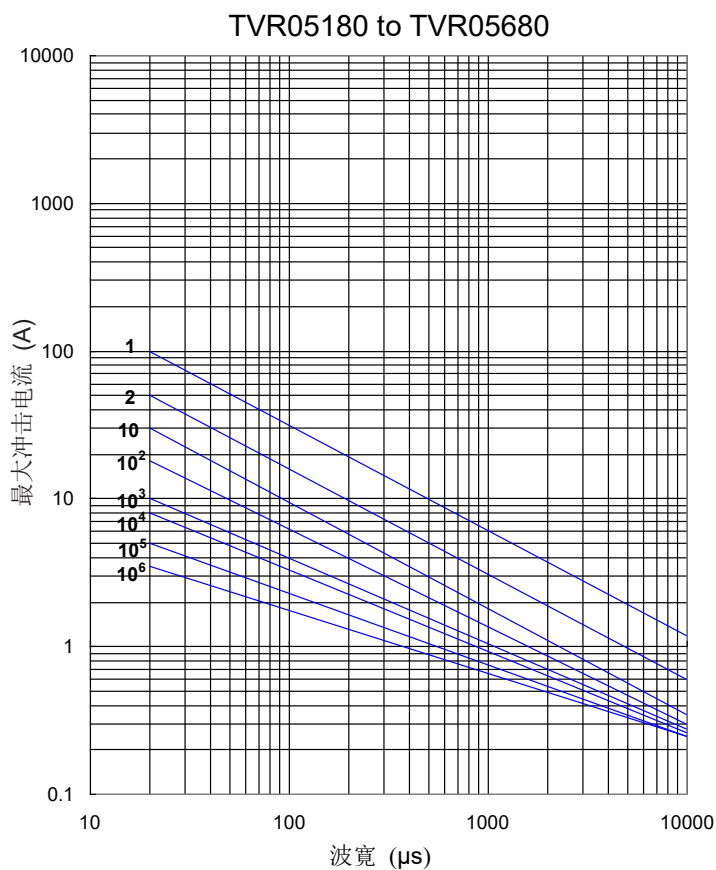
### ■ 功率减额曲线



### ■ 冲击电流标准波形



### ■ 最大冲击电流减额曲线

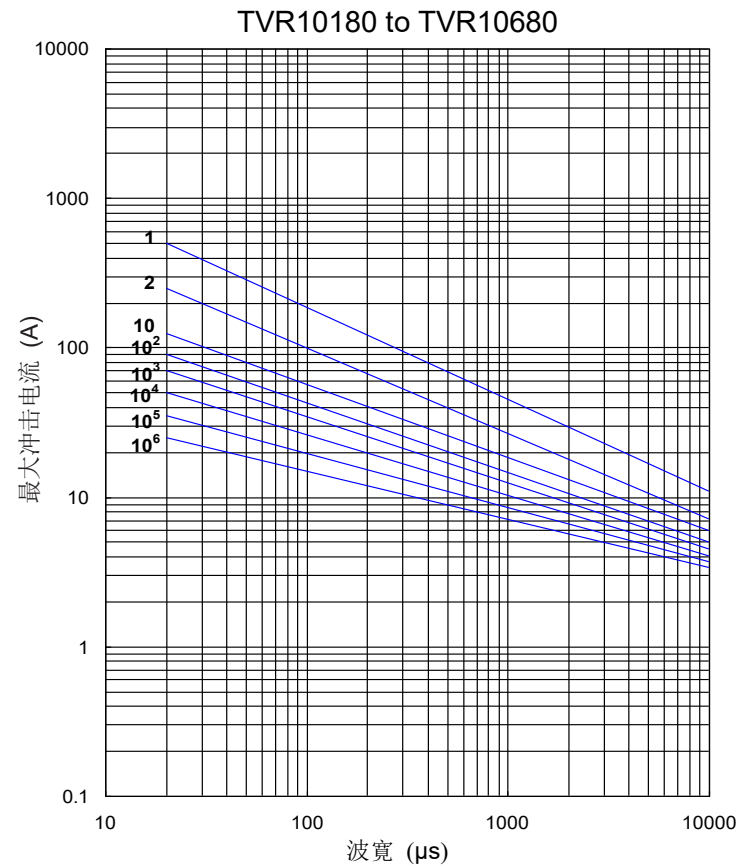
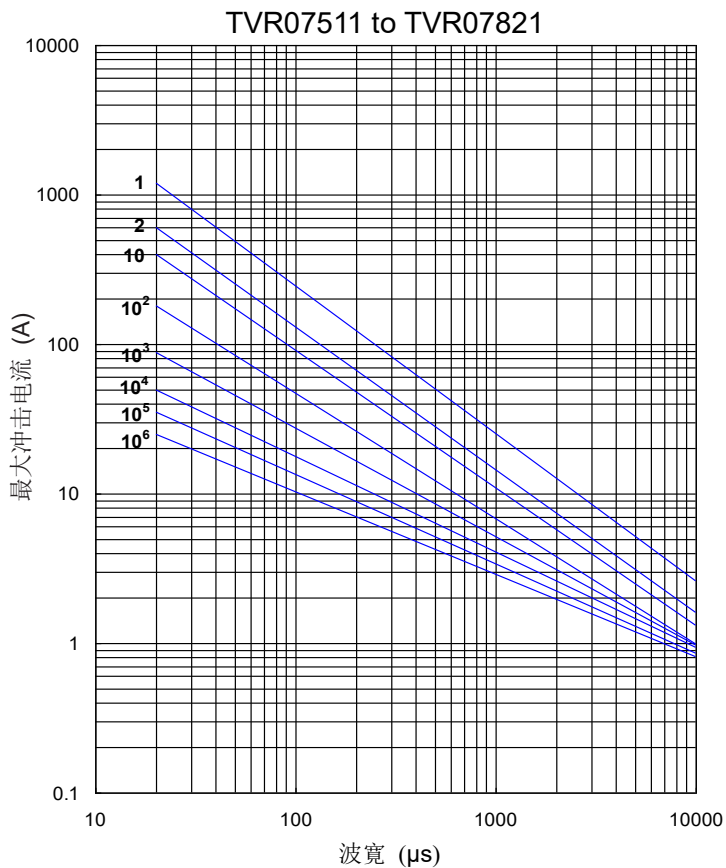
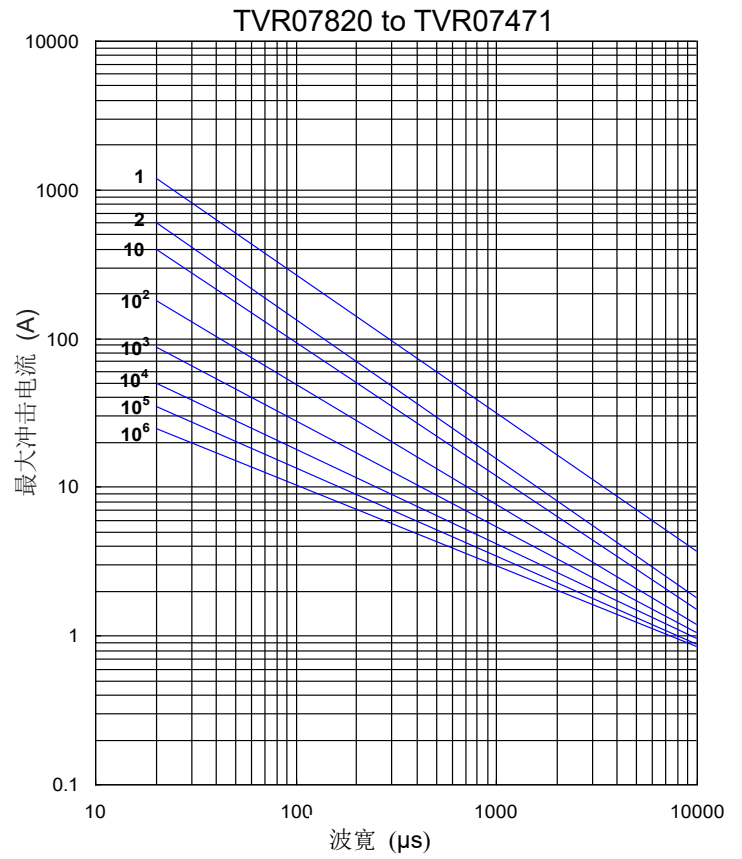
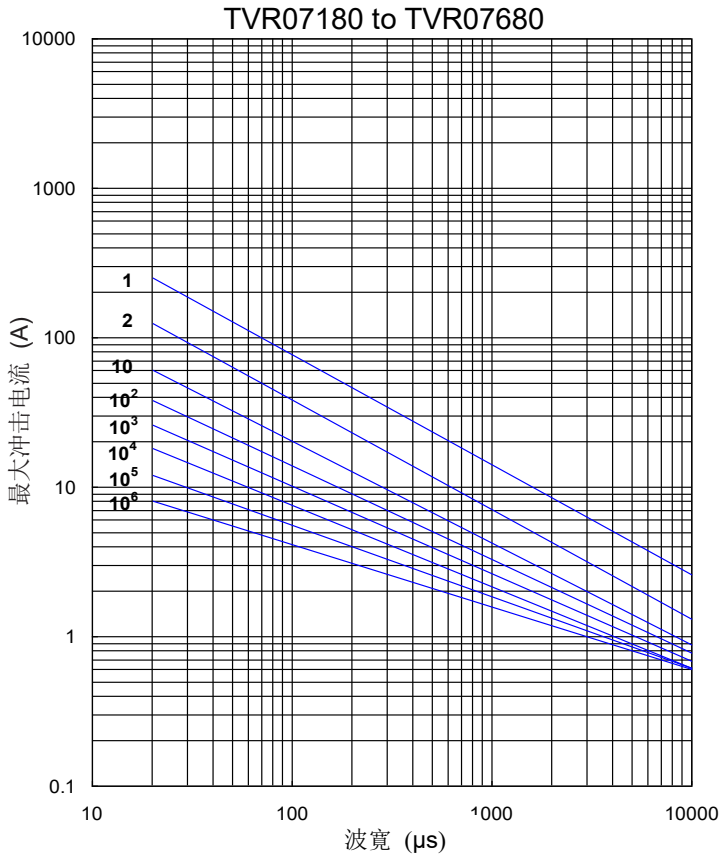


# 氧化锌压敏电阻：TVR 系列

## 浪涌保护用插件型



### 最大冲击电流减额曲线



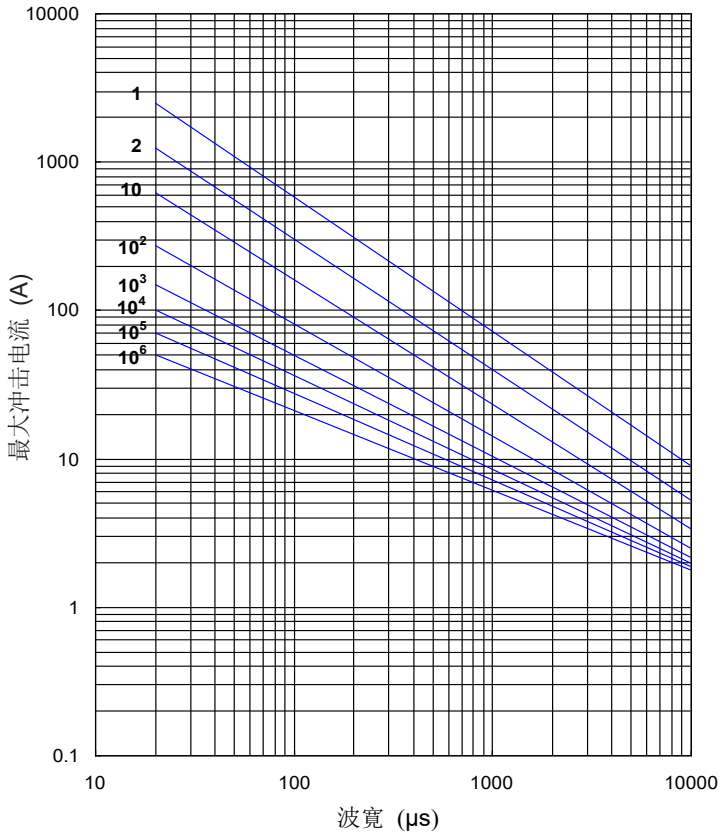
# 氧化锌压敏电阻：TVR 系列

## 浪涌保护用插件型

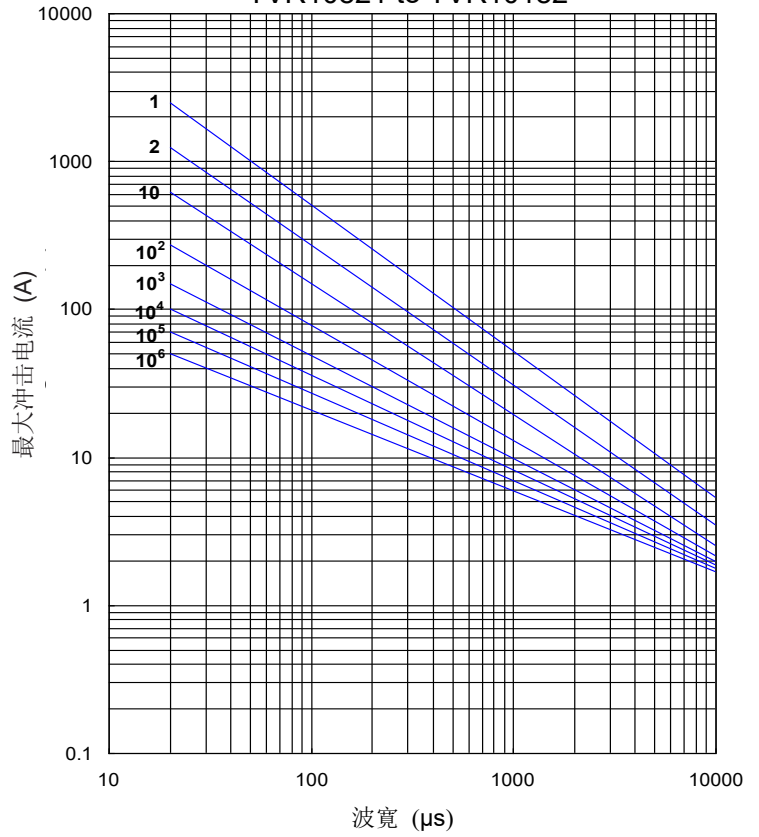


### 最大冲击电流减额曲线

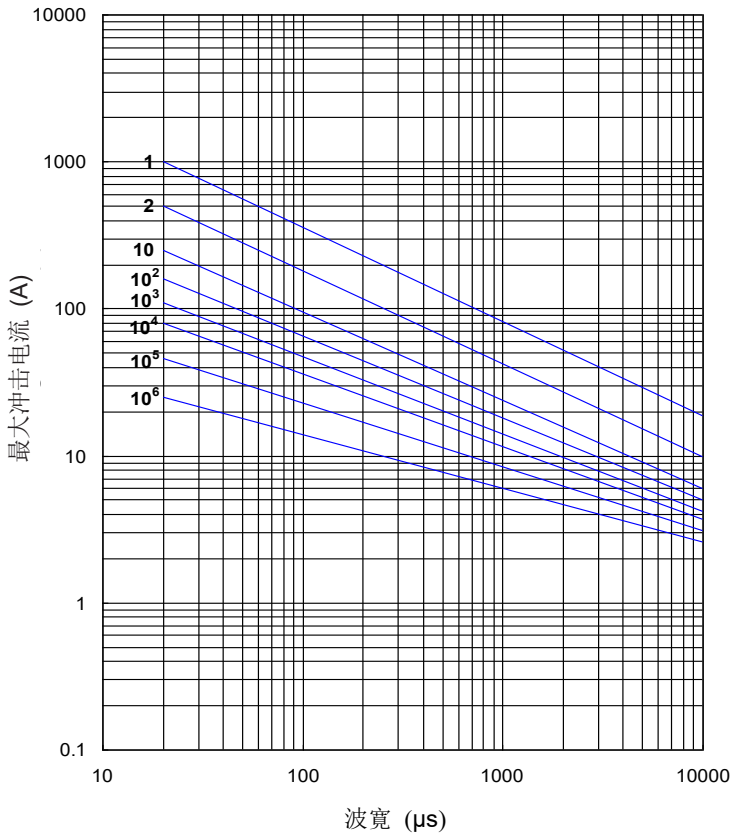
TVR10820 to TVR10751



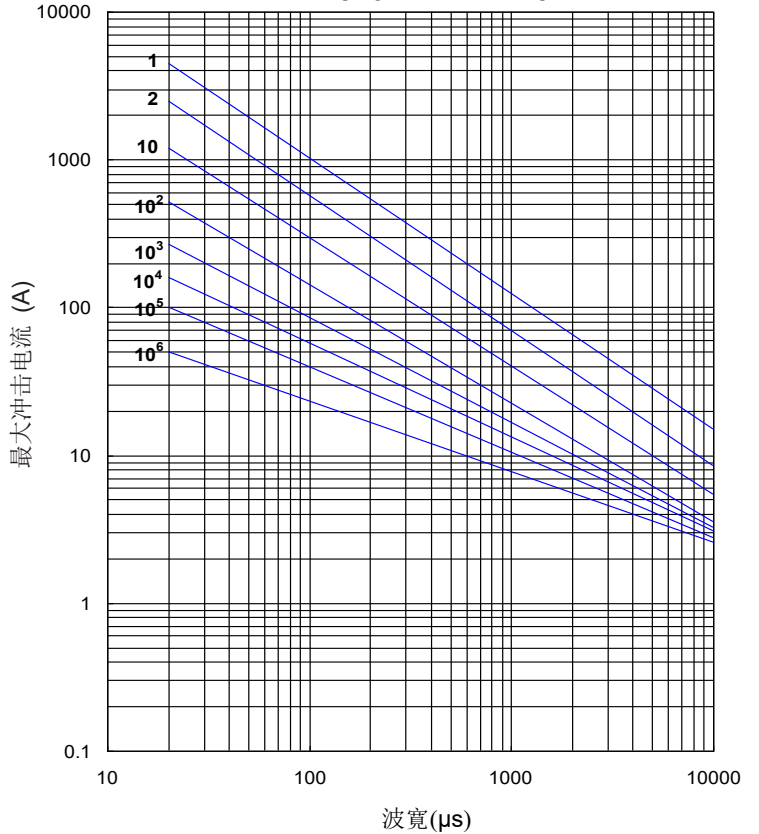
TVR10821 to TVR10182



TVR14180 to TVR14680



TVR14820 to TVR14751

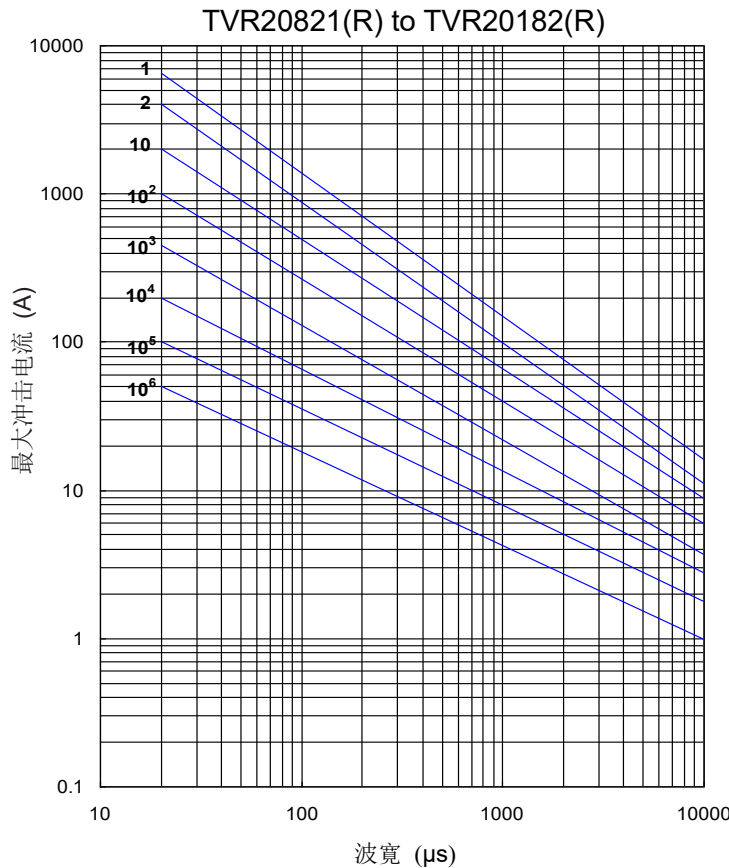
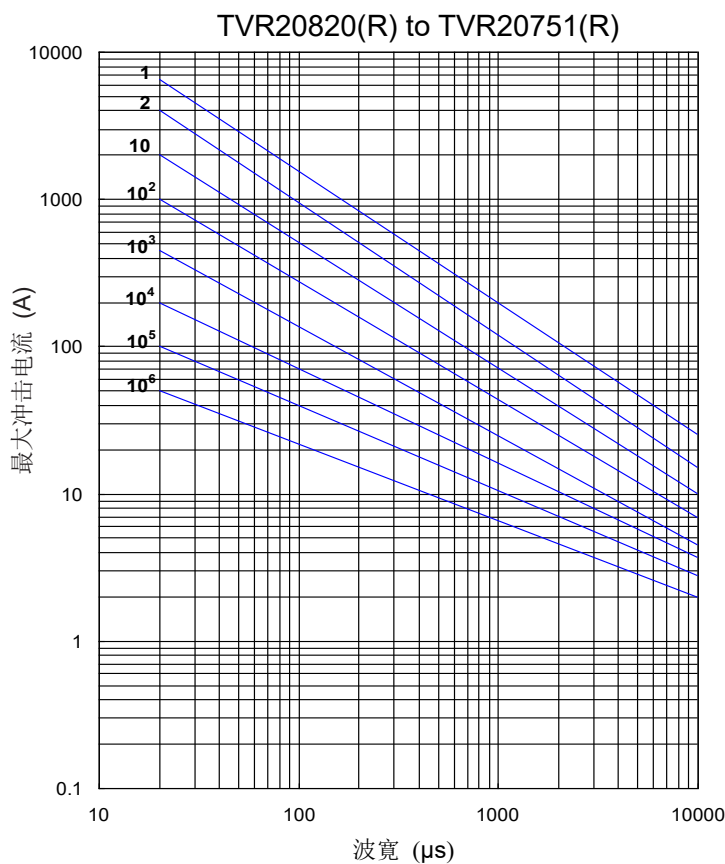
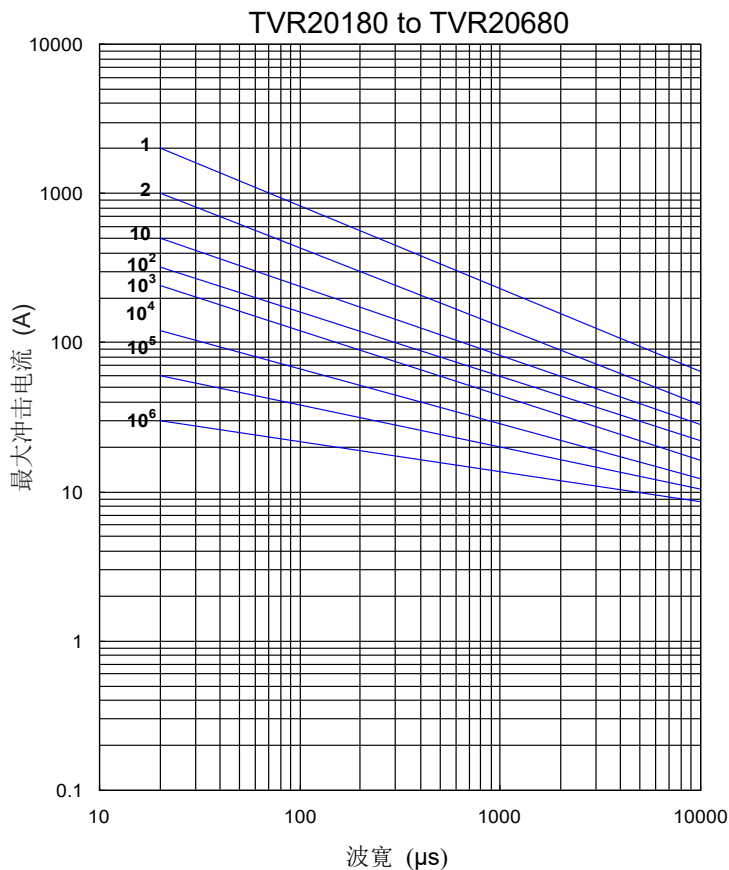
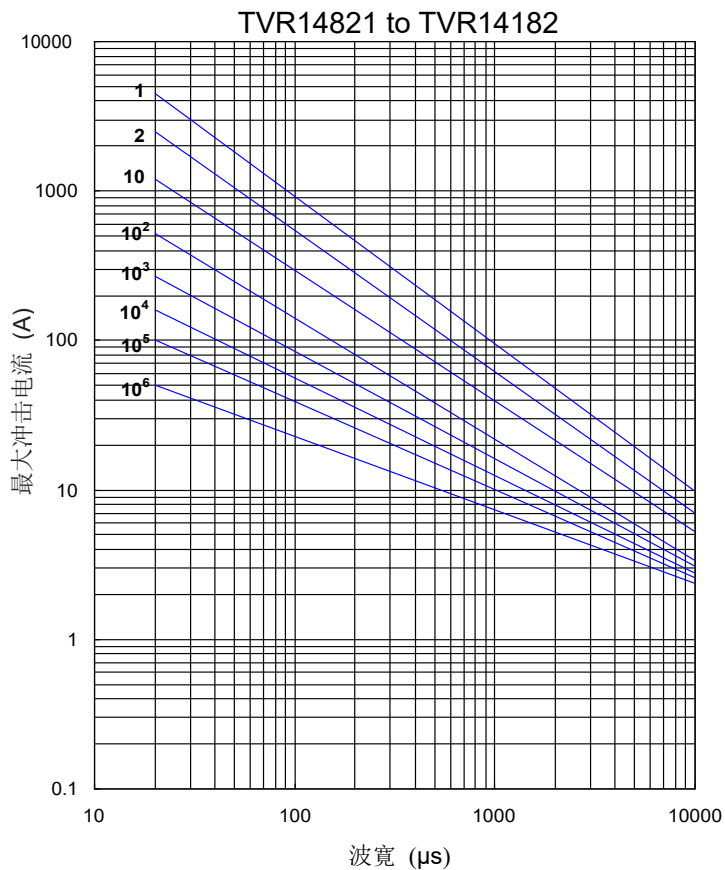




# 氧化锌压敏电阻：TVR 系列 浪涌保护用插件型



## 最大冲击电流减额曲线



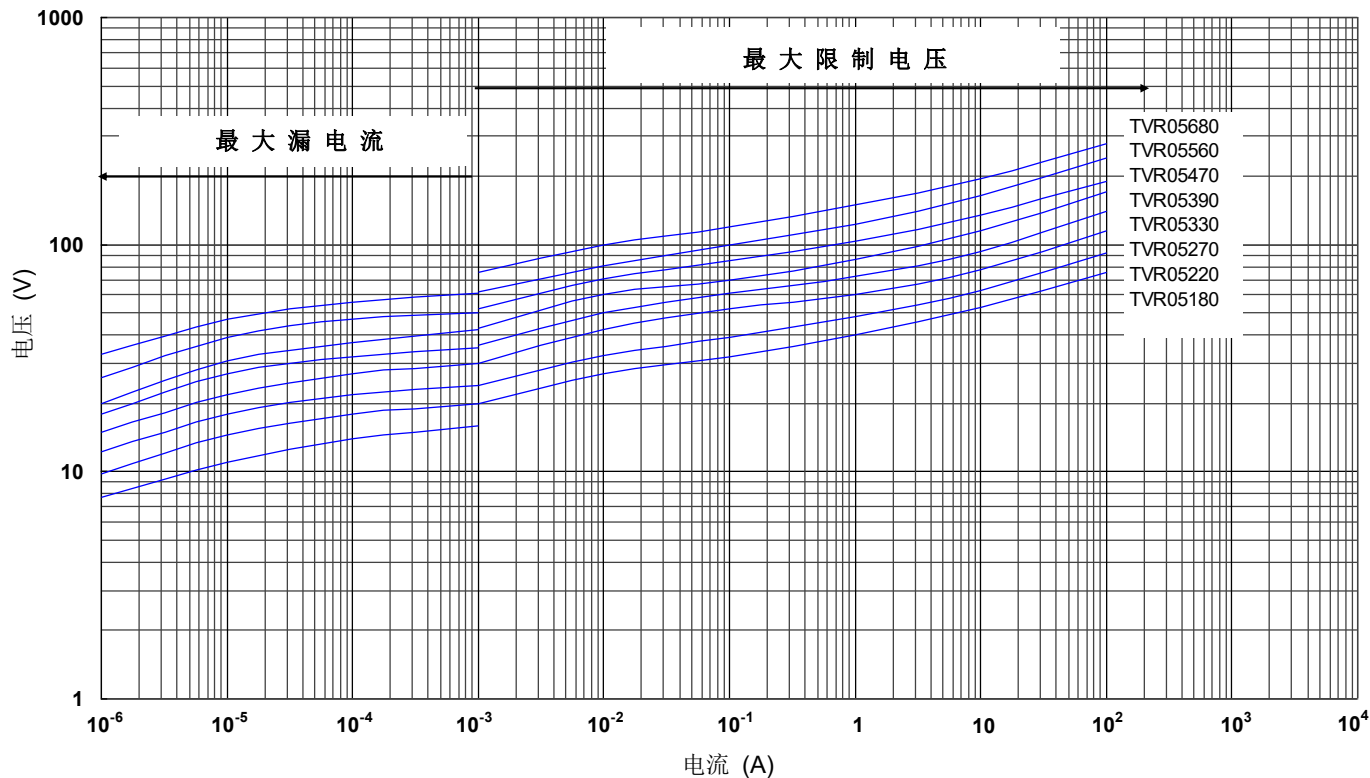
# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型

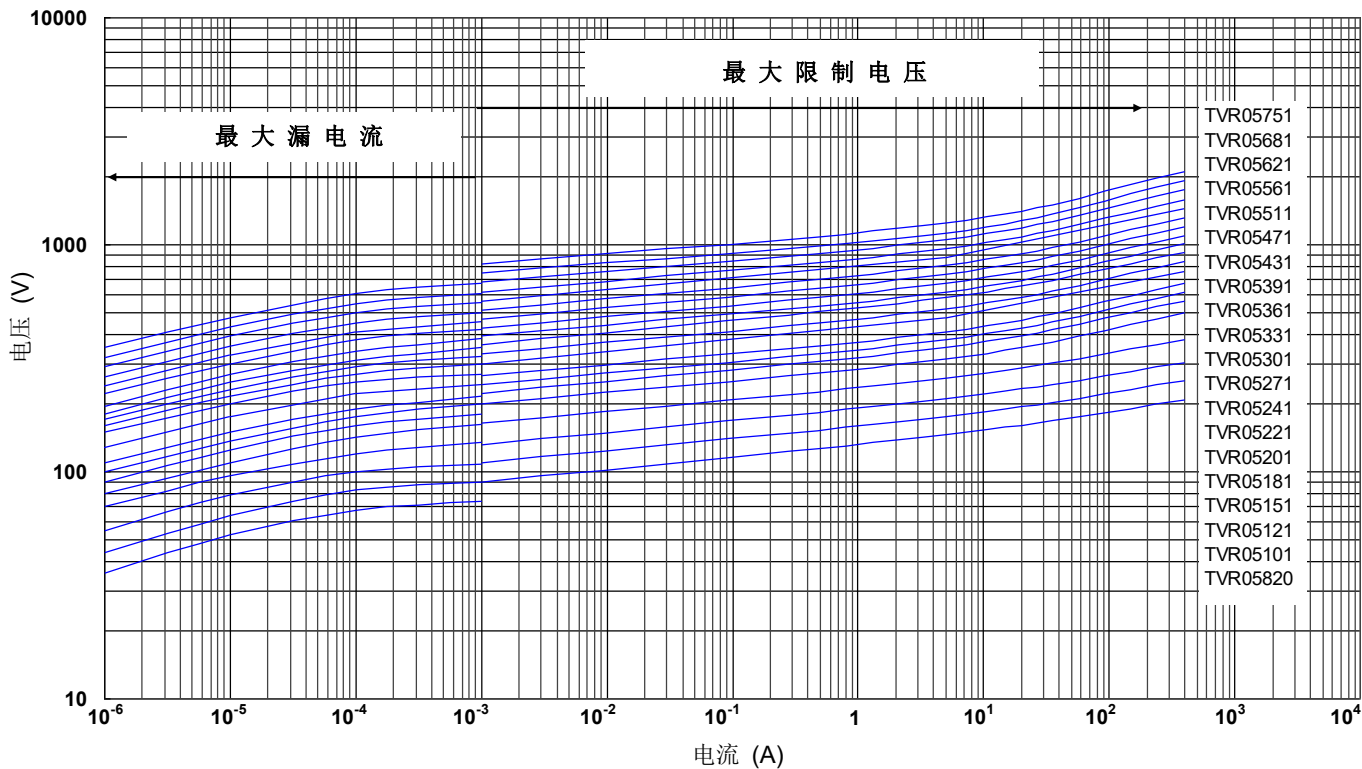


### 最大漏电流与最大限制电压曲线

最大漏电流与最大限制电压曲线 (TVR05180 to TVR05680)



最大漏电流与最大限制电压曲线 (TVR05820 to TVR05751)



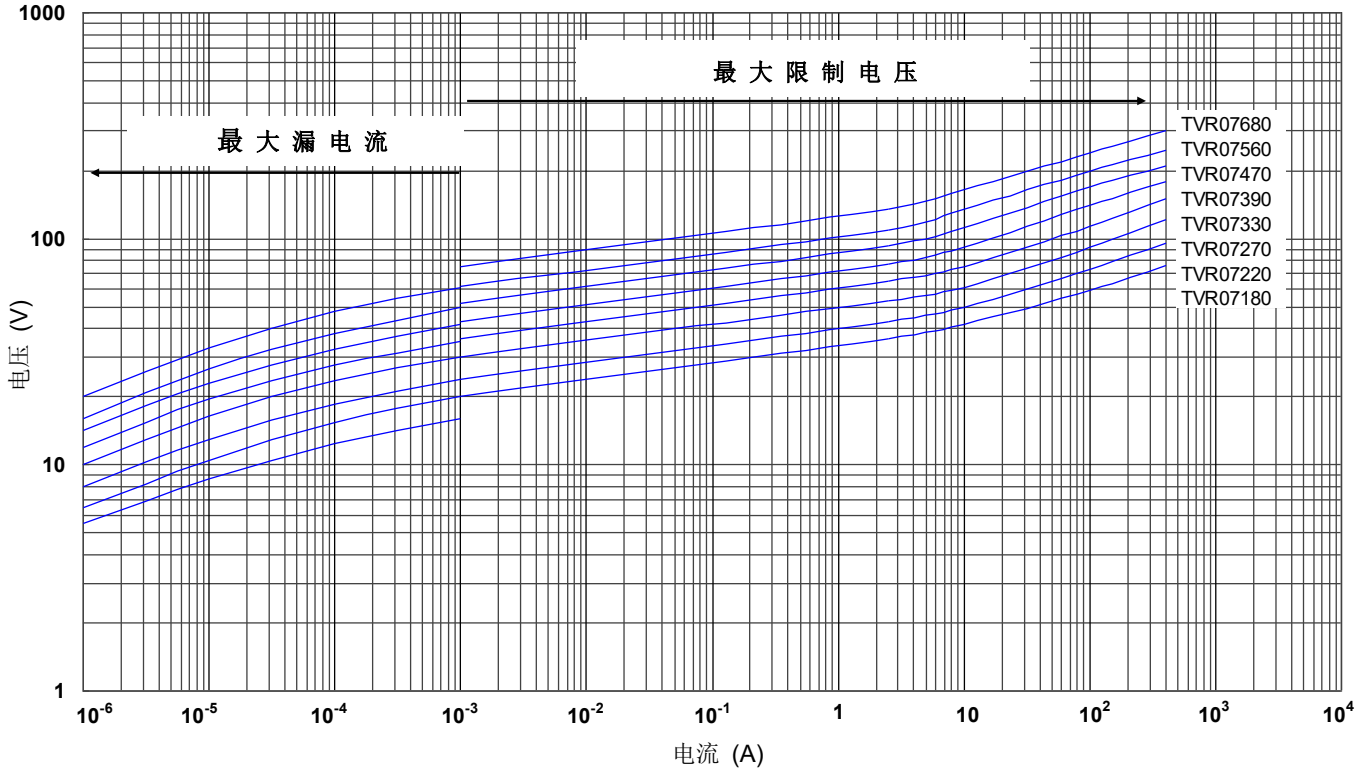
# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型

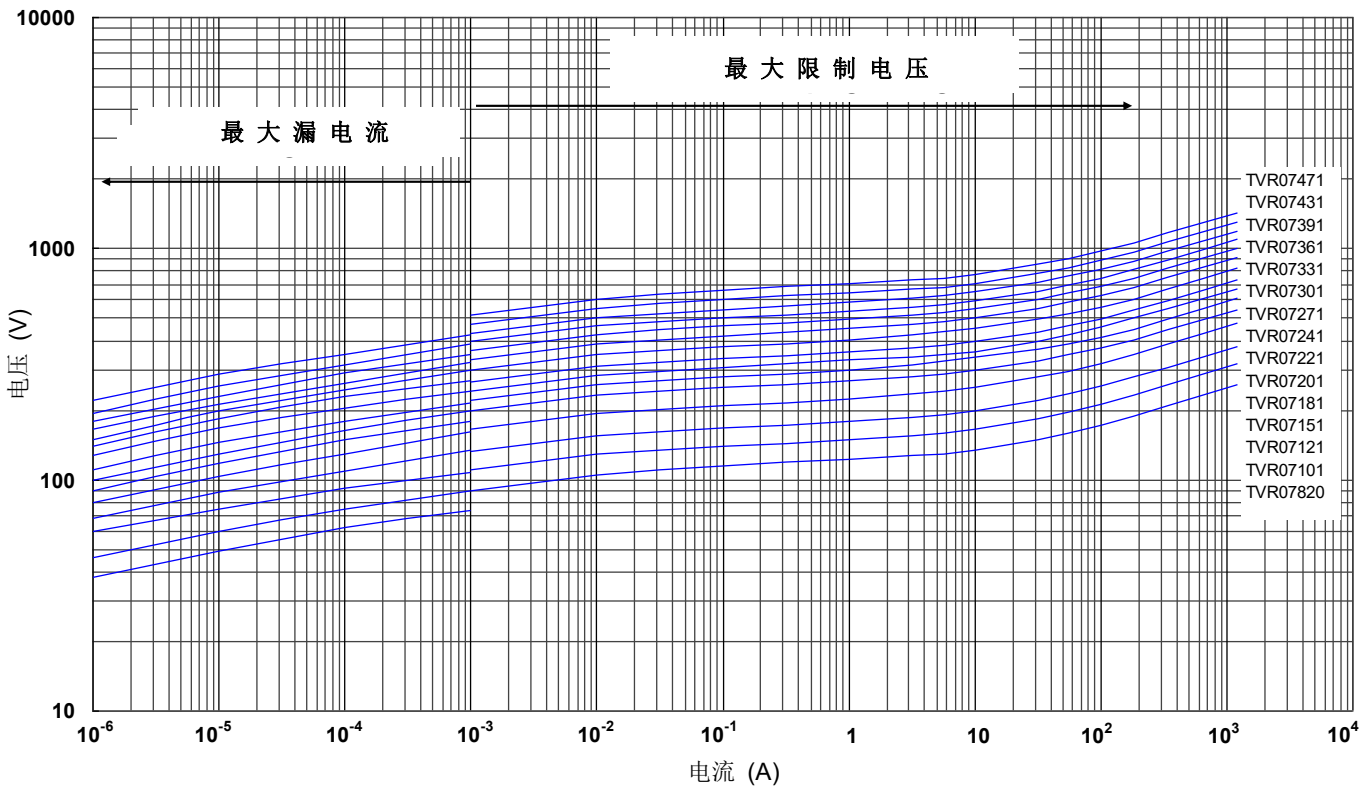


### 最大漏电流与最大限制电压曲线

最大漏电流与最大限制电压曲线 (TVR07180 to TVR07680)



最大漏电流与最大限制电压曲线 (TVR07820 to TVR07471)



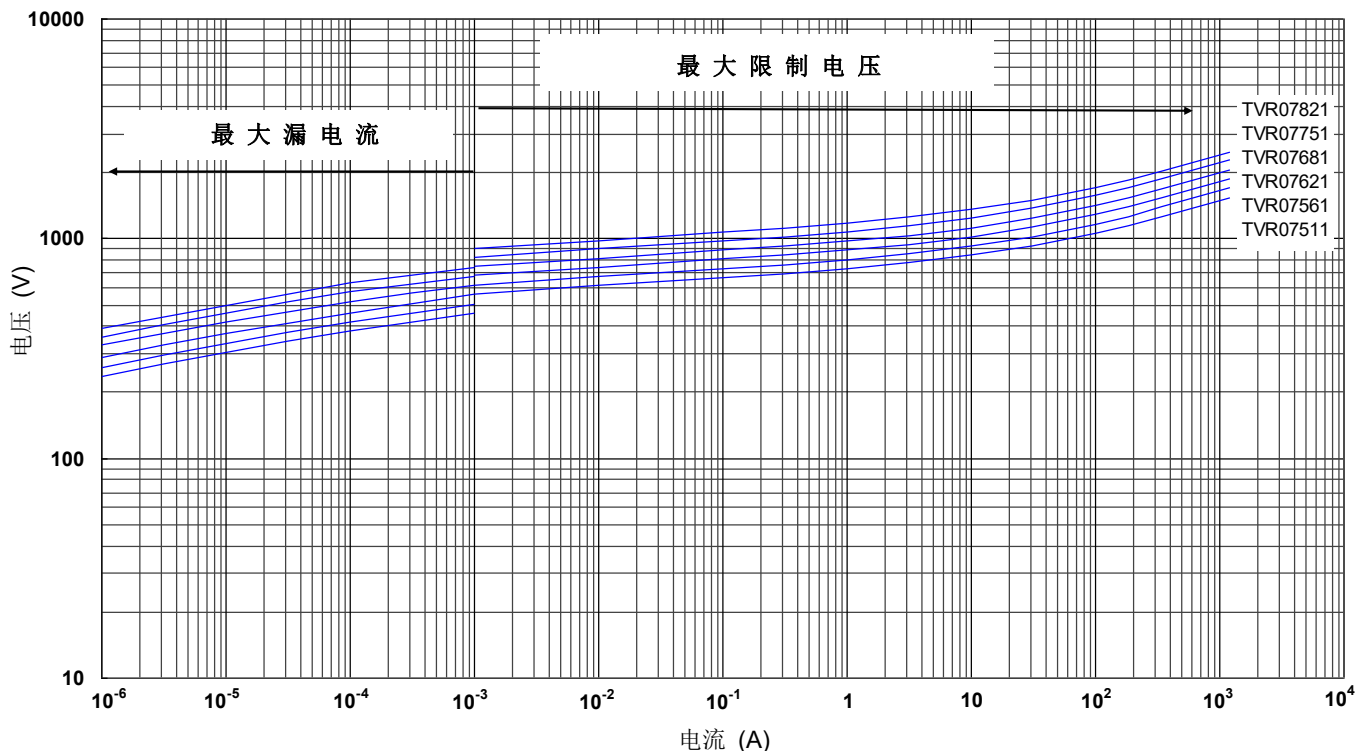
# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型

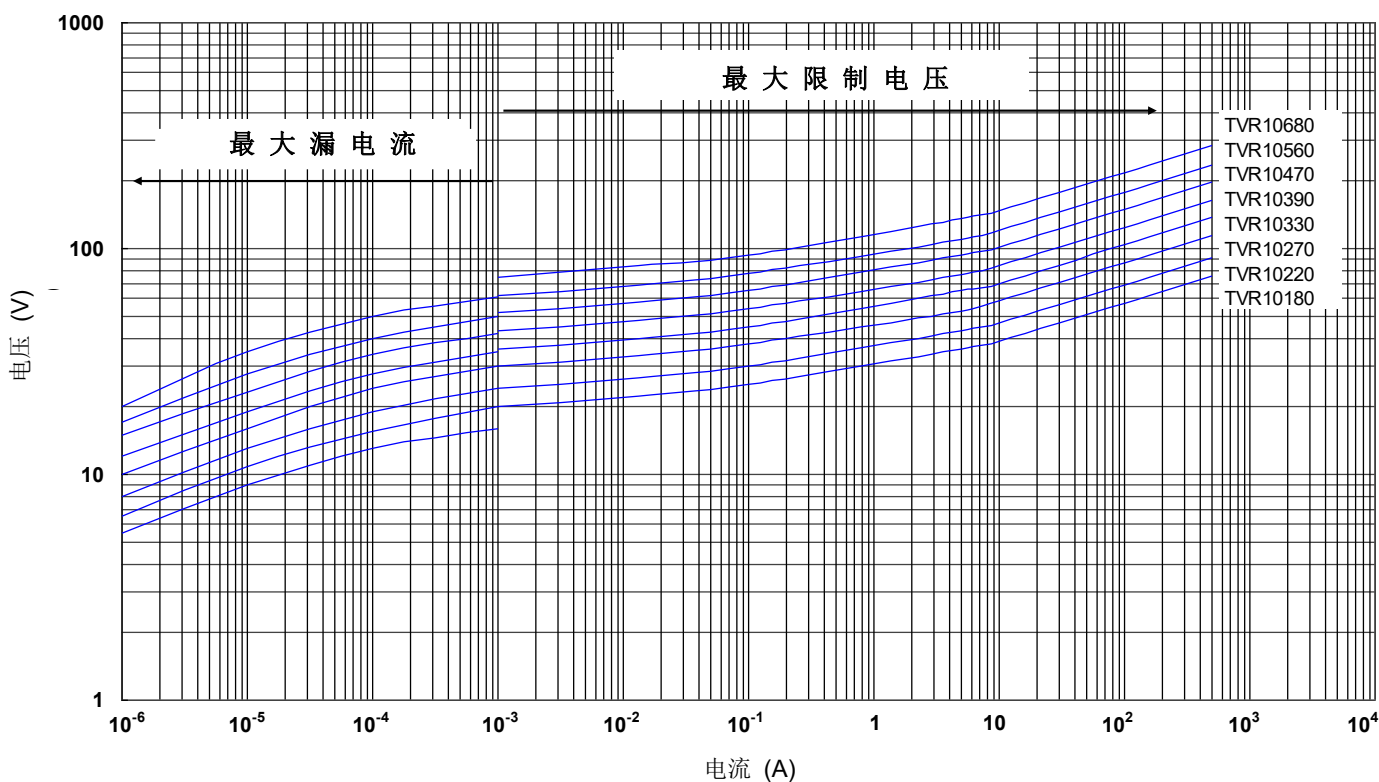


### 最大漏电流与最大限制电压曲线

最大漏电流与最大限制电压曲线 (TVR07511 to TVR07821)



最大漏电流与最大限制电压曲线 (TVR10180 to TVR10680)



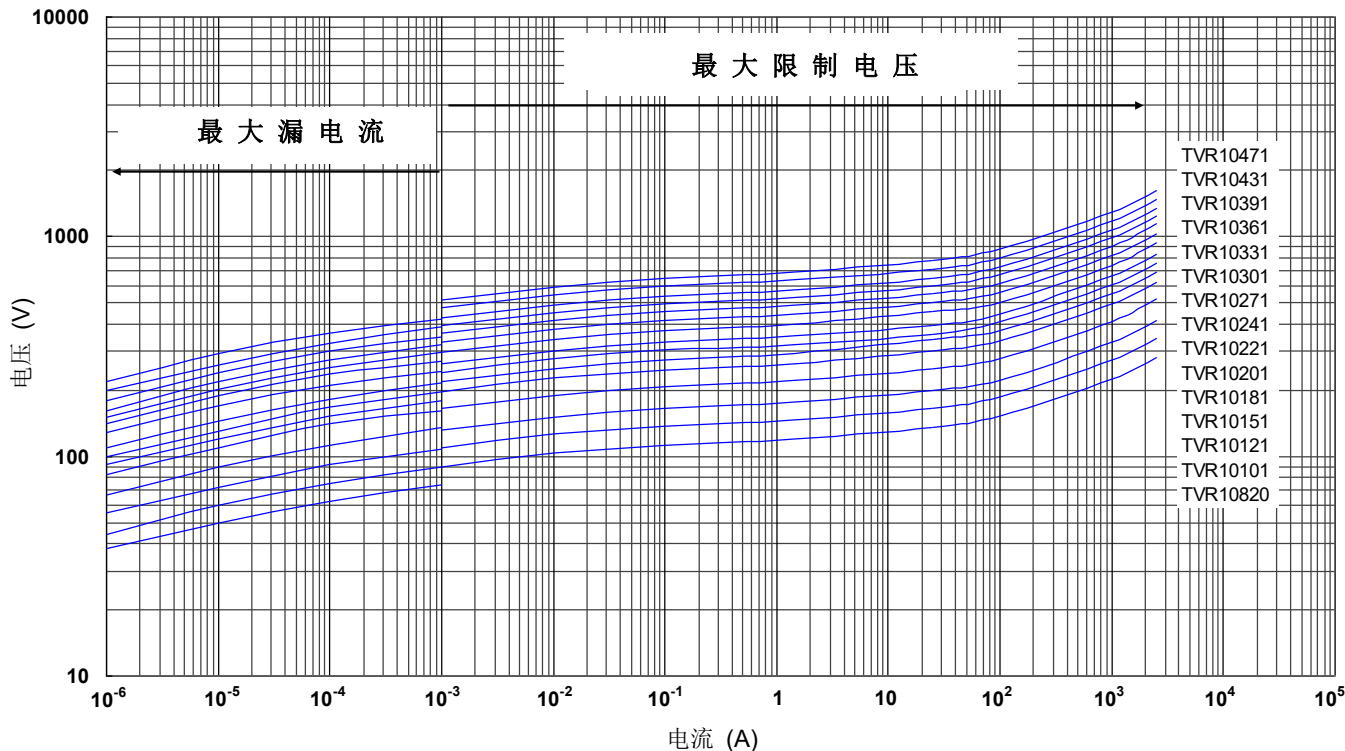
# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型

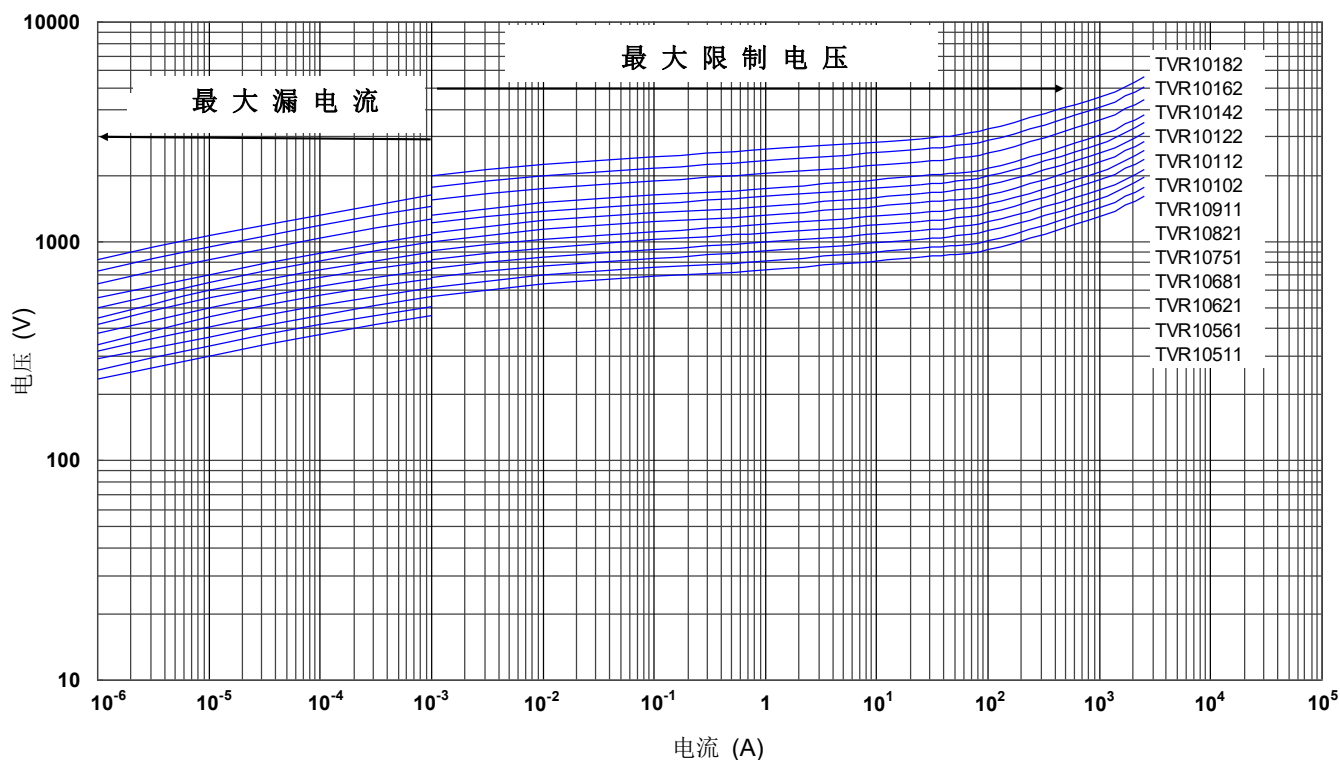


### 最大漏电流与最大限制电压曲线

最大漏电流与最大限制电压曲线 (TVR10820 to TVR10471)



最大漏电流与最大限制电压曲线 (TVR10511 to TVR10182)



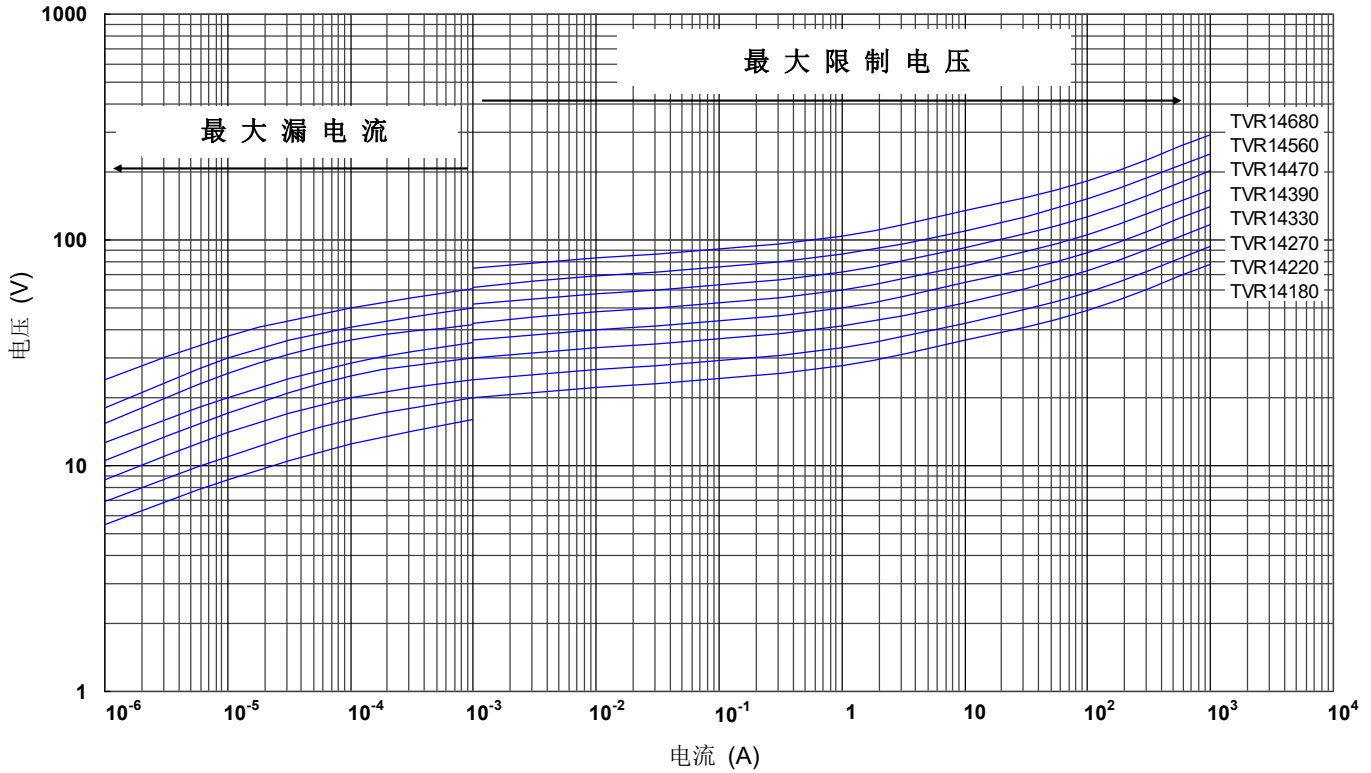
# 氧化锌压敏电阻：TVR 系列

## 浪涌保护用插件型

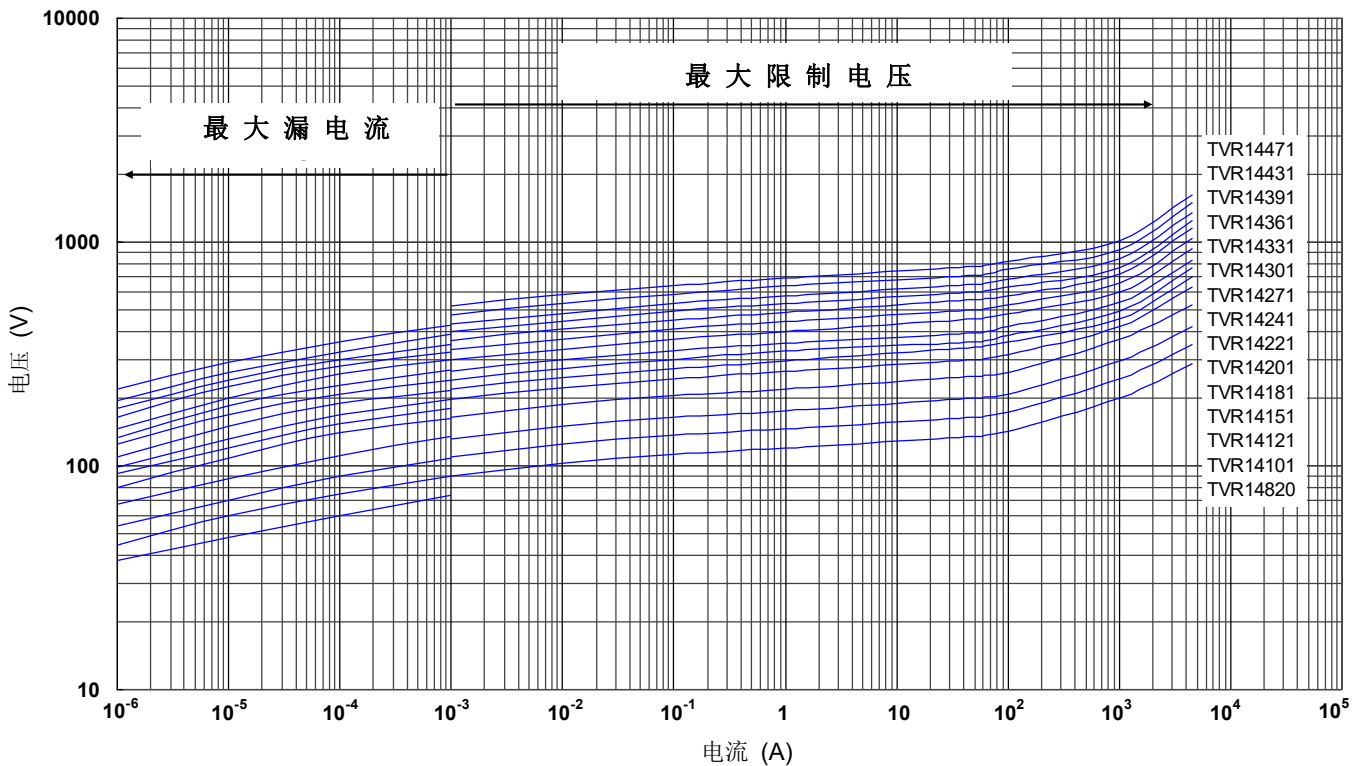


### 最大漏电流与最大限制电压曲线

最大漏电流与最大限制电压曲线 (TVR14180 to TVR14680)



最大漏电流与最大限制电压曲线 (TVR14820 to TVR14471)



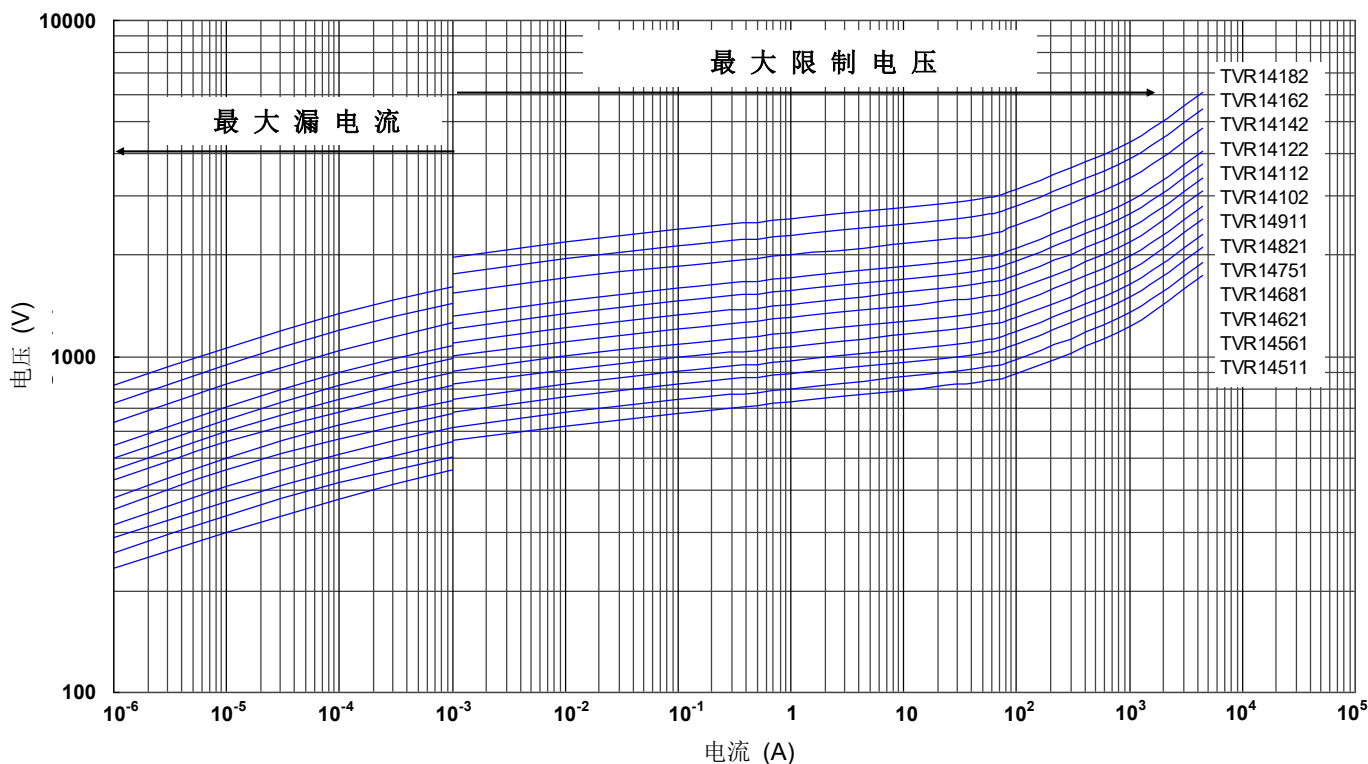
# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型

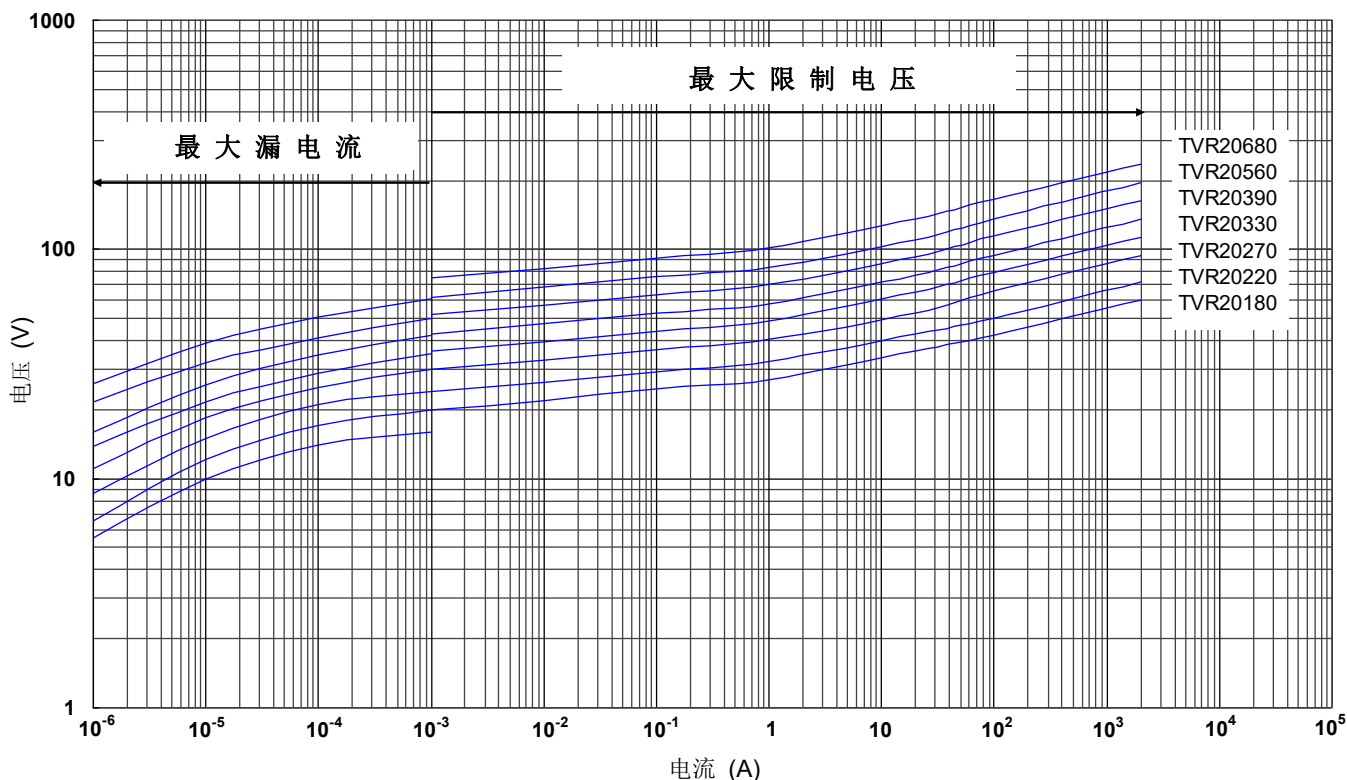


### 最大漏电流与最大限制电压曲线

最大漏电流与最大限制电压曲线 (TVR14511 to TVR14182)



最大漏电流与最大限制电压曲线 (TVR20180 to TVR20680)



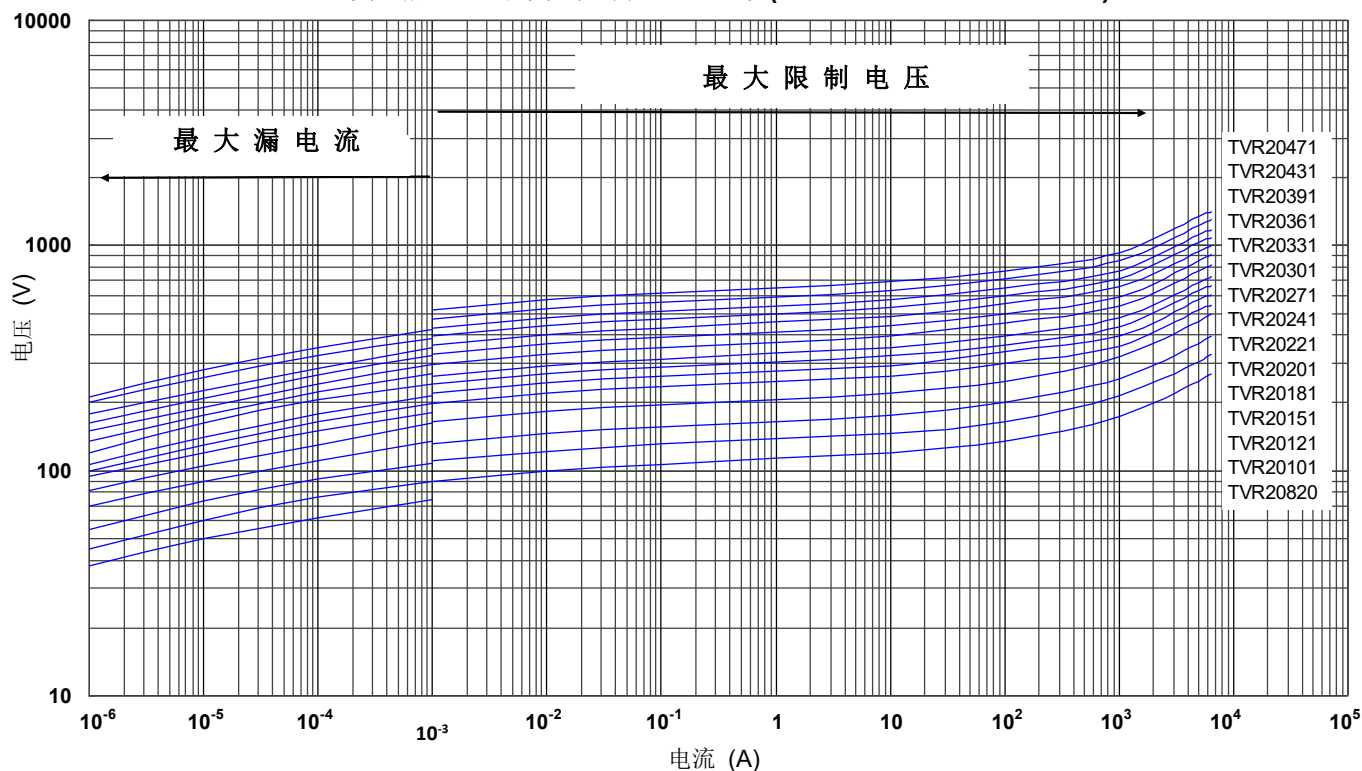
# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型

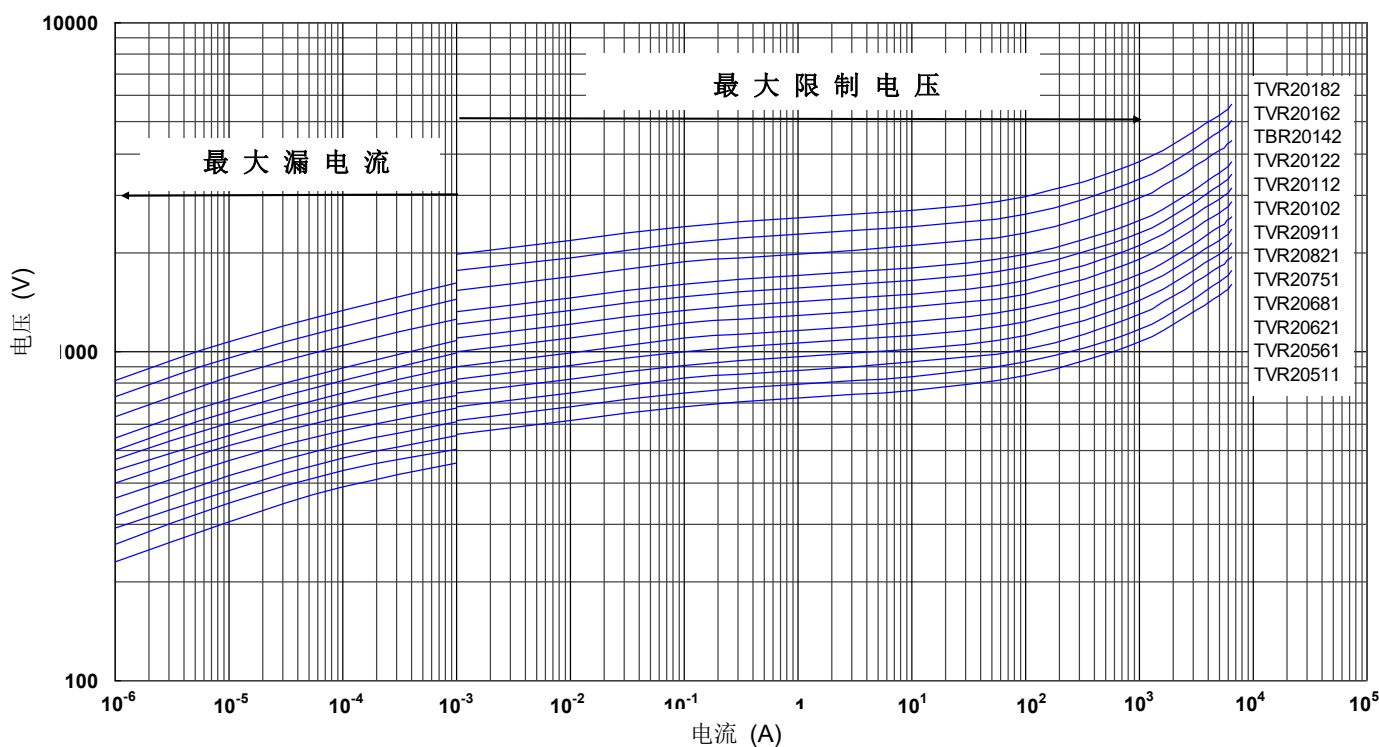


### 最大漏电流与最大限制电压曲线

最大漏电流与最大限制电压曲线 (TVR20820 to TVR20471)



最大漏电流与最大限制电压曲线 (TVR20511 to TVR20182)





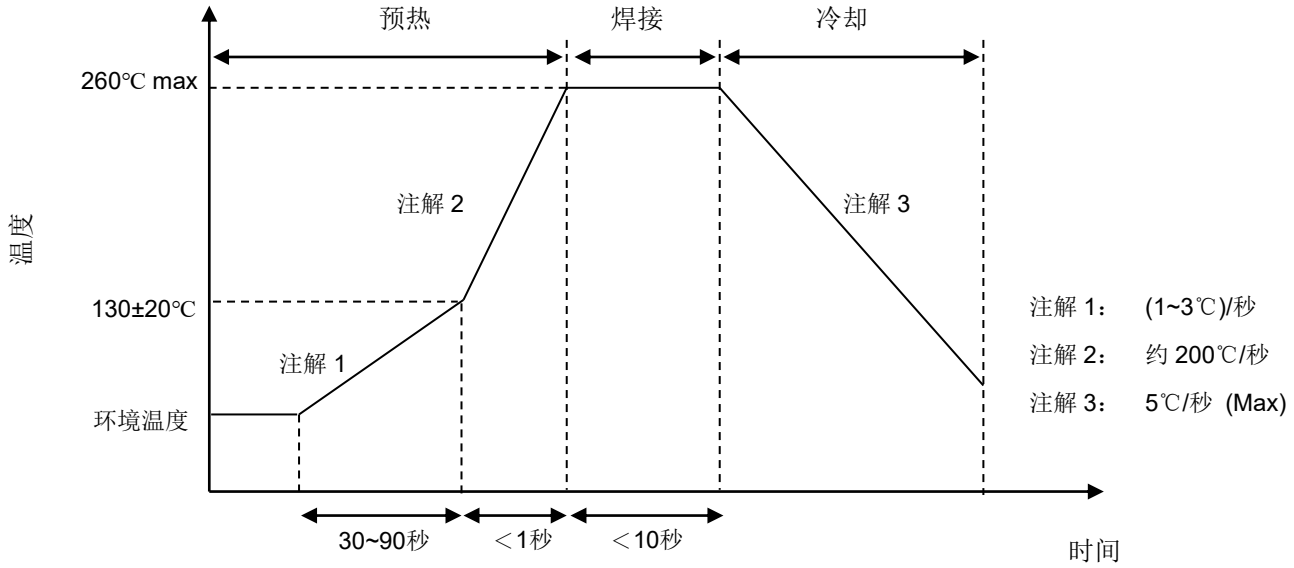
# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



### ■ 推荐焊接条件

#### ● 波峰焊曲线



#### ● 烙铁重工焊接条件

| 项目         | 条件           |
|------------|--------------|
| 烙铁头部温度     | 360°C (max.) |
| 焊接时间       | 3 sec (max.) |
| 焊接位置与涂装层距离 | 2 mm (min.)  |

# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



### ■ 可靠性

| 试验项目               | 测试标准                   | 试验条件/方法   | 性能要求   |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
|--------------------|------------------------|---|--|-----------------|-----------|-----|------------|------|--|----|-----|---|-------|------|---|----|-----|--|
| 引线拉力试验             | IEC 60068-2-21         | <p>渐近的方式施加指定的重量, 并且在一固定位置维持 10±1 秒。</p> <table border="1"> <tr> <td>线径<br/>(mm)</td> <td>引线直接下拉力<br/>(Kg)</td> </tr> <tr> <td>0.5&lt;d≤0.8</td> <td>1.0</td> </tr> <tr> <td>0.8&lt;d≤1.25</td> <td>2.0</td> </tr> </table>  | 线径<br>(mm)   | 引线直接下拉力<br>(Kg) | 0.5<d≤0.8 | 1.0 | 0.8<d≤1.25 | 2.0  | $ \Delta V_{1mA} / V_{1mA}  \leq 5\%$<br>无外观损伤 |    |     |   |       |      |   |    |     |  |
| 线径<br>(mm)         | 引线直接下拉力<br>(Kg)        |   |  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 0.5<d≤0.8          | 1.0                    |   |  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 0.8<d≤1.25         | 2.0                    |   |  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 引线弯折试验             | IEC 60068-2-21         | <p>对样品的一条引线加指定的重量, 先向一方向弯折 90°, 再复原到原位。然后反向弯折 90°, 以相同方法进行。</p> <table border="1"> <tr> <td>线径<br/>(mm)</td> <td>弯折试验加力<br/>(Kg)</td> </tr> <tr> <td>0.5&lt;d≤0.8</td> <td>0.5</td> </tr> <tr> <td>0.8&lt;d≤1.25</td> <td>1.0</td> </tr> </table>   | 线径<br>(mm)   | 弯折试验加力<br>(Kg)  | 0.5<d≤0.8 | 0.5 | 0.8<d≤1.25 | 1.0  | $ \Delta V_{1mA} / V_{1mA}  \leq 5\%$<br>无外观损伤 |    |     |   |       |      |   |    |     |  |
| 线径<br>(mm)         | 弯折试验加力<br>(Kg)         |   |  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 0.5<d≤0.8          | 0.5                    |   |  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 0.8<d≤1.25         | 1.0                    |   |  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 振动试验               | IEC 60068-2-6          | 振动频率: 10 ~ 55 Hz<br>振幅: 0.75mm 或 98 m/s <sup>2</sup><br>持续时间: 6 小时(3 x 2 小时)  | $ \Delta V_{1mA} / V_{1mA}  \leq 5\%$<br>无外观损伤                 |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 可焊性试验              | IEC 60068-2-20         | 245±3℃, 3±0.3 秒   | 着锡面积 ≥ 95%   |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 耐焊接热试验             | IEC 60068-2-20         | 260±3℃, 10±1 秒<br>(5±0.5 秒仅适用于 TVR05 系列)  | $ \Delta V_{1mA} / V_{1mA}  \leq 5\%$<br>无外观损伤                 |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 高温存储试验             | IEC 60068-2-2          | 125±5℃ x 1000±24 小时   | $ \Delta V_{1mA} / V_{1mA}  \leq 5\%$<br>无外观损伤                 |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 稳态湿热试验             | IEC 60068-2-78         | 试验分 a、b 两组:<br>a. 40±2℃, 90 ~ 95 % RH, 1344 小时<br>b. 40±2℃, 90 ~ 95 % RH, 10% V <sub>DC</sub> , 1344 小时   | $ \Delta V_{1mA} / V_{1mA}  \leq 5\%$<br>无外观损伤<br>绝缘阻抗 ≥ 100MΩ |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 温度急变试验             | IEC 60068-2-14         | 温度急变按下表条件循环五个周期。 <table border="1"> <thead> <tr> <th>步骤</th> <th>温度(℃)</th> <th>时间(分钟)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40±3</td> <td>30±3</td> </tr> <tr> <td>2</td> <td>室温</td> <td>5±3</td> </tr> <tr> <td>3</td> <td>105±2</td> <td>30±3</td> </tr> <tr> <td>4</td> <td>室温</td> <td>5±3</td> </tr> </tbody> </table>  | 步骤   | 温度(℃)           | 时间(分钟)    | 1   | -40±3      | 30±3 | 2  | 室温 | 5±3 | 3 | 105±2 | 30±3 | 4 | 室温 | 5±3 | $ \Delta V_{1mA} / V_{1mA}  \leq 5\%$<br>无外观损伤 |
| 步骤                 | 温度(℃)                  | 时间(分钟)  |  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 1                  | -40±3                  | 30±3  |  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 2                  | 室温                     | 5±3   |  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 3                  | 105±2                  | 30±3  |  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 4                  | 室温                     | 5±3   |  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 高温负荷试验             | MIL-STD-202 Method 108 | 105±2 °C, 1000 ± 24小时, 施加V <sub>DC</sub> 或 V <sub>rms</sub> (最大连续工作电压)  | $ \Delta V_{1mA} / V_{1mA}  \leq 10\%$<br>无外观损伤                |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 8/20μs 电流冲击寿命试验    | IEC 61051-1            | 8/20μs 电流波形, 同方向冲击最大冲击电流 10 次(冲击电流对应 10 次的减额值), 间隔时间 30 秒。  | $ \Delta V_{1mA} / V_{1mA}  \leq 10\%$<br>无外观损伤                |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 10/1000μs 电流冲击寿命试验 | IEC 61051-1            | 10/1000μs 电流波形, 同方向冲击最大冲击电流 10 次(冲击电流对应 10 次的减额值), 间隔时间 2 分钟。   | $ \Delta V_{1mA} / V_{1mA}  \leq 10\%$<br>无外观损伤                |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 耐压试验               | IEC 61051-1            | 金属球法, 2500 V <sub>ac</sub> 1 分钟   | 无外观损伤  |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |
| 压敏电压温度系数试验         | 规格标准                   | $\frac{V_{1mA} \text{ at } 105^{\circ}\text{C} - V_{1mA} \text{ at } 25^{\circ}\text{C}}{V_{1mA} \text{ at } 25^{\circ}\text{C}} \times \frac{1}{80} \times 100 (\% / ^{\circ}\text{C})$ $\frac{V_{1mA} \text{ at } -40^{\circ}\text{C} - V_{1mA} \text{ at } 25^{\circ}\text{C}}{V_{1mA} \text{ at } 25^{\circ}\text{C}} \times \frac{1}{65} \times 100 (\% / ^{\circ}\text{C})$ | -0.05 ≤ TC ≤ 0.05 (% / °C)                                     |                 |           |     |            |      |  |    |     |   |       |      |   |    |     |  |

# 氧化锌压敏电阻器：TVR 系列

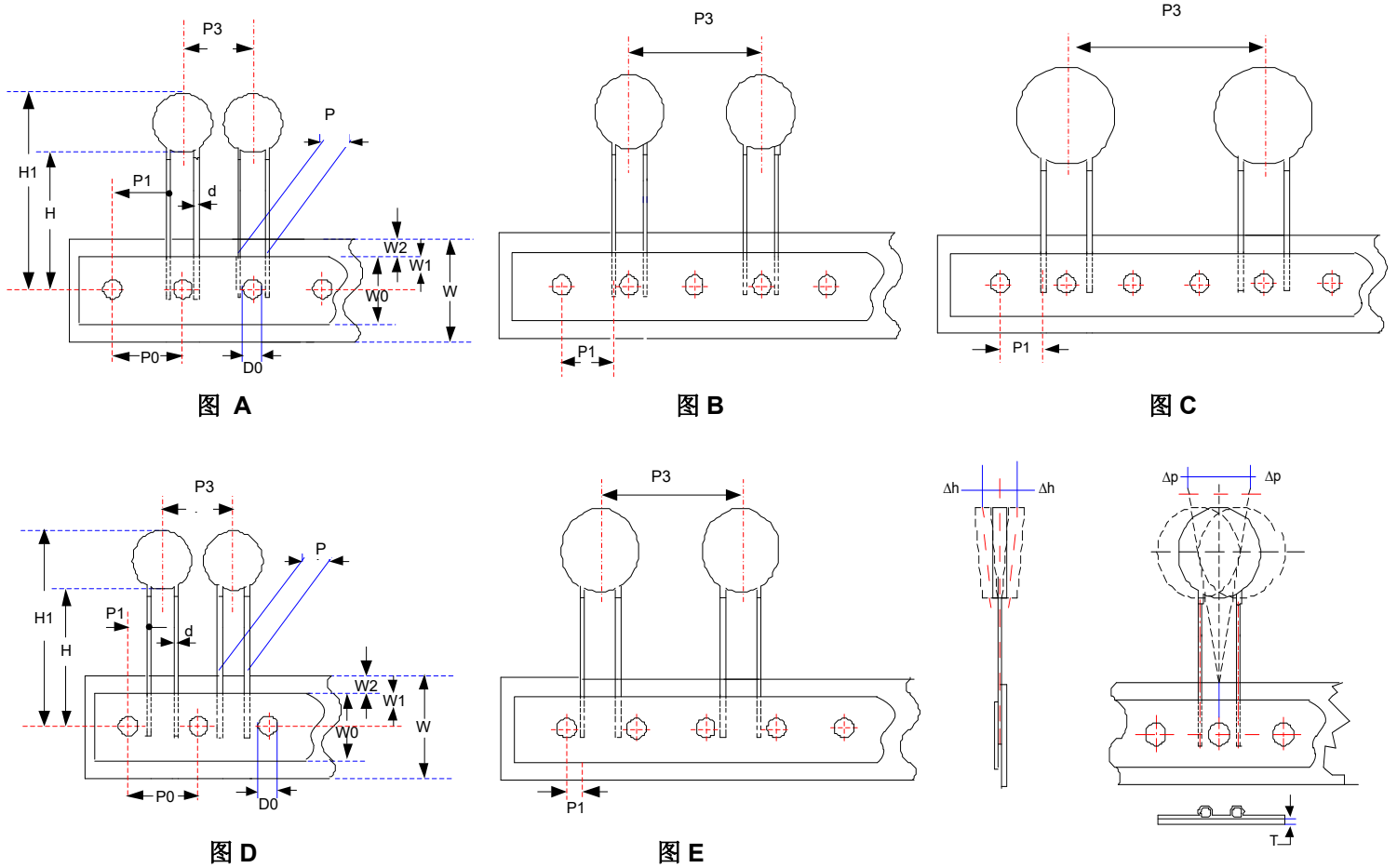
## 浪涌保护用插件型



### ■ 包装

#### ■ 编带包装方式说明

#### S 型 (直脚)



(单位: mm)

| 编带<br>代码                    | 本体<br>尺寸 | P <sub>0</sub> | P    | P <sub>3</sub> | P <sub>1</sub> | H     | H <sub>1</sub> | d     | W <sub>0</sub> | W <sub>1</sub> | W <sub>2</sub> | W           | ΔP   | Δh   | D <sub>0</sub> | T    | 图形 |
|-----------------------------|----------|----------------|------|----------------|----------------|-------|----------------|-------|----------------|----------------|----------------|-------------|------|------|----------------|------|----|
|                             |          | ±0.3           | ±1   | ±1             | ±1             | +2/-0 | Max.           | ±0.02 | ±1             | +0.75/<br>-0.5 | Max            | +1/<br>-0.5 | Max. | Max. | ±0.2           | ±0.2 |    |
| A<br>(P <sub>0</sub> :12.7) | 05       | 12.7           | 5.0  | 12.7           | 3.55           | 18    | 28.0           | 0.6   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | D  |
|                             | 07       | 12.7           | 5.0  | 12.7           | 3.55           | 18    | 30.0           | 0.6   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | D  |
|                             | 10       | 12.7           | 7.5  | 12.7           | 8.55           | 18    | 33.5           | 0.8   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | A  |
|                             | 14       | 12.7           | 7.5  | 25.4           | 8.55           | 18    | 38.0           | 0.8   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | B  |
|                             | 20       | 12.7           | 10.0 | 25.4           | 7.20           | 18    | 40.5           | 1.0   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | C  |
| E<br>(P <sub>0</sub> :15.0) | 07       | 15             | 5.0  | 15.0           | 4.70           | 18    | 30.0           | 0.6   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | D  |
|                             | 10       | 15             | 7.5  | 15.0           | 3.35           | 18    | 33.5           | 0.8   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | D  |
|                             | 14       | 15             | 7.5  | 30.0           | 3.35           | 18    | 38.0           | 0.8   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | E  |
|                             | 20       | 15             | 10.0 | 30.0           | 9.50           | 18    | 40.5           | 1.0   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | B  |

# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



### F 型 (Y型引脚)

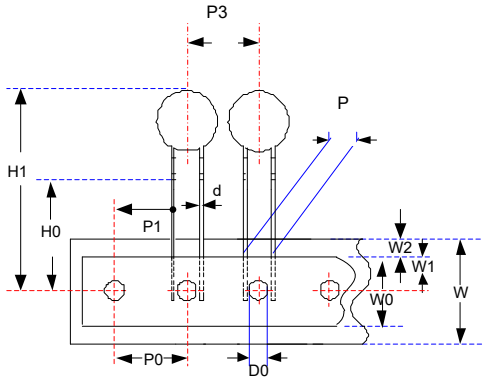


图 A

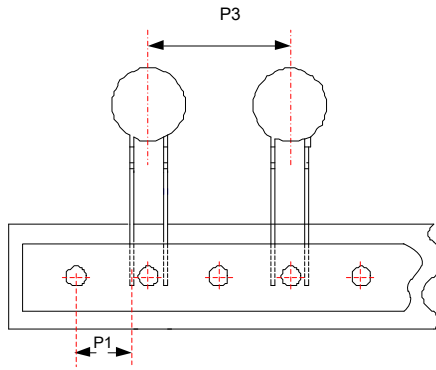


图 B

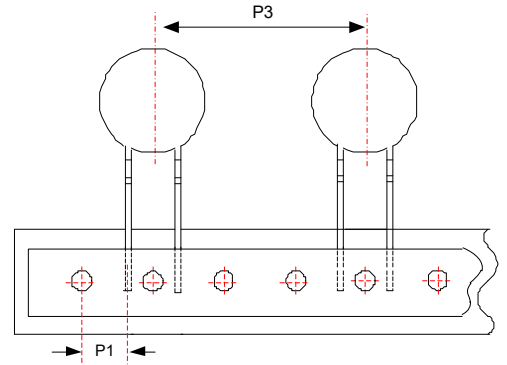


图 C

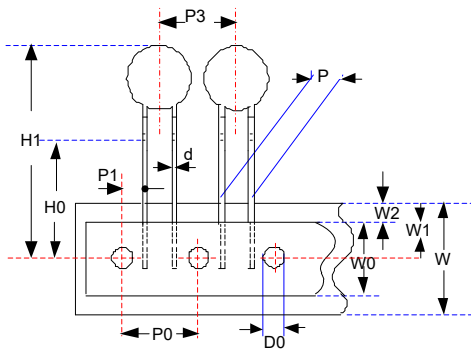


图 D

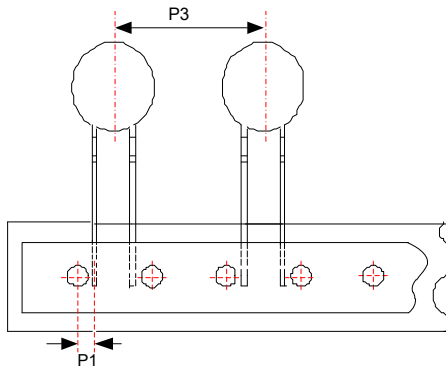
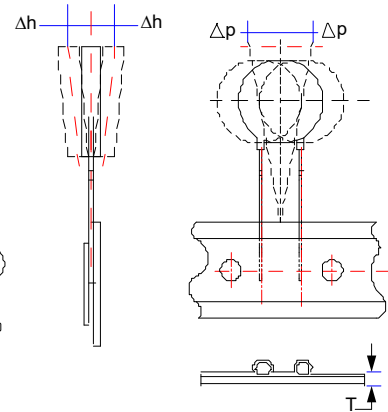


图 E



(单位: mm)

| 编带<br>代码                    | 本体<br>尺寸 | P <sub>0</sub> | P    | P <sub>3</sub> | P <sub>1</sub> | H <sub>0</sub> | H <sub>1</sub> | d     | W <sub>0</sub> | W <sub>1</sub> | W <sub>2</sub> | W           | ΔP   | Δh   | D <sub>0</sub> | T    | 图形 |
|-----------------------------|----------|----------------|------|----------------|----------------|----------------|----------------|-------|----------------|----------------|----------------|-------------|------|------|----------------|------|----|
|                             |          | ±0.3           | ±1   | ±1             | ±0.7           | ±0.5           | Max.           | ±0.02 | ±1             | +0.75/<br>-0.5 | Max            | +1/<br>-0.5 | Max. | Max. | ±0.2           | ±0.2 |    |
| A<br>(P <sub>0</sub> .12.7) | 05       | 12.7           | 5.0  | 12.7           | 3.55           | 16             | 28.0           | 0.6   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | D  |
|                             | 07       | 12.7           | 5.0  | 12.7           | 3.55           | 16             | 30.0           | 0.6   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | D  |
|                             | 10       | 12.7           | 7.5  | 12.7           | 8.55           | 16             | 33.5           | 0.8   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | A  |
|                             | 14       | 12.7           | 7.5  | 25.4           | 8.55           | 16             | 38.0           | 0.8   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | B  |
|                             | 20       | 12.7           | 10.0 | 25.4           | 7.20           | 16             | 44.5           | 1.0   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | C  |
| E<br>(P <sub>0</sub> .15.0) | 07       | 15             | 5.0  | 15.0           | 4.70           | 16             | 30.0           | 0.6   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | D  |
|                             | 10       | 15             | 7.5  | 15.0           | 3.35           | 16             | 33.5           | 0.8   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | D  |
|                             | 14       | 15             | 7.5  | 30.0           | 3.35           | 16             | 38.0           | 0.8   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | E  |
|                             | 20       | 15             | 10.0 | 30.0           | 9.50           | 16             | 44.5           | 1.0   | 12             | 9              | 3              | 18          | 1    | 2    | 4              | 0.6  | B  |

# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



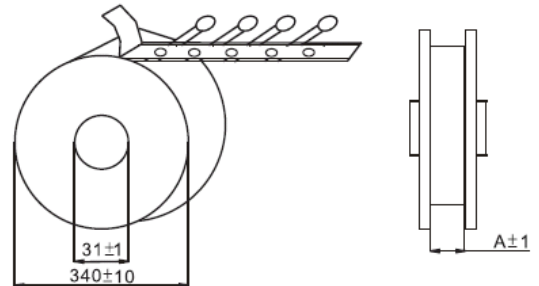
### ■ 数量

#### ● 散装

| 系列              | 直脚型数量 (pcs/袋) | 切脚型数量 (pcs/袋) | 弯脚型数量 (pcs/袋) |
|-----------------|---------------|---------------|---------------|
| TVR05           | 250           | 250           | ---           |
| TVR07           | 250           | 250           | 200           |
| TVR10 (180~751) | 200           | 200           | 200           |
| TVR10 (821~182) | 100           | 100           | 100           |
| TVR14           | 100           | 100           | 100           |
| TVR20           | 50            | 50            | 50            |

#### ● 卷轴包装

| 系列             | A (mm) | 数量 (pcs/卷) |
|----------------|--------|------------|
| TVR05(180~391) | 46     | 1,500      |
| TVR05(431~751) |        | 1,000      |
| TVR07(180~391) |        | 1,500      |
| TVR07(431~821) |        | 1,000      |
| TVR10(180~911) |        | 1,000      |
| TVR10(102~112) |        | 750        |
| TVR10(122~182) |        | 500        |
| TVR14(180~470) |        | 800        |
| TVR14(560~391) |        | 750        |
| TVR14(431~182) |        | 500        |
| TVR20(180~431) |        | 55         |
| TVR20(471~681) | 400    |            |
| TVR20(751~182) | 250    |            |



(单位: mm)

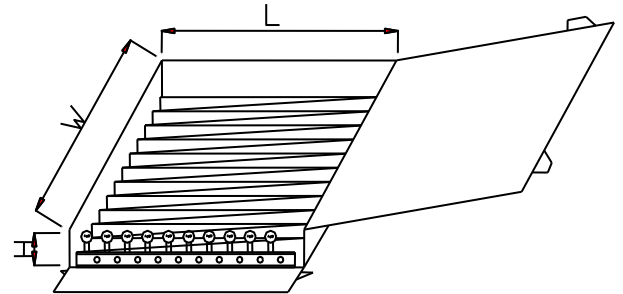
# 氧化锌压敏电阻器：TVR 系列

## 浪涌保护用插件型



### ● 盒装

| 系列             | 数量<br>(pcs/盒) | 数量<br>(pcs/盒) |
|----------------|---------------|---------------|
|                | P0=12.7mm     | P0=15.0mm     |
| TVR05(180~391) | 1,500         | 1,500         |
| TVR05(431~751) | 1,200         | 1,000         |
| TVR07(180~560) | 1,500         | 1,500         |
| TVR07(680)     | 1,200         | 1,200         |
| TVR07(820~391) | 1,500         | 1,500         |
| TVR07(431~511) | 1,200         | 1,200         |
| TVR07(561~821) | 1,000         | 1,200         |
| TVR10(180~361) | 1,200         | 950           |
| TVR10(391~621) | 1,200         | 750           |
| TVR10(681~112) | 800           | 600           |
| TVR10(122~182) | 700           | 400           |
| TVR14(180~271) | 650           | 500           |
| TVR14(301~561) | 500           | 450           |
| TVR14(621~751) | 400           | 350           |
| TVR14(821~112) | 300           | 300           |
| TVR14(122~182) | 300           | 250           |
| TVR20(180~751) | 300           | 300           |
| TVR20(821~182) | 250           | 250           |



(单位: mm)

| 系列               | W±5 | L±5 | H±5 |
|------------------|-----|-----|-----|
| TVR05<br>~ TVR20 | 345 | 275 | 55  |

### ■ 仓库存储条件

#### ● 存储条件：

1. 储存温度：-10°C~+40°C
2. 相对湿度：≤75%RH
3. 不要将本产品存放在有腐蚀性气体或是阳光直接照射的环境中保管。

#### ● 存储期限：1年