

## 40D Series

### 产品简介

压敏电阻的本身是由氧化锌颗粒组成的矩阵结构。颗粒之间的晶界类似双向 PN 结的电气特性，当低电压时，这些晶界处于高阻抗状态，当电压高时，又会处于击穿状态，是一种非线性器件。



### 应用领域:

通讯基站电源  
铁路信号电源  
1000V 以下低压配电设备、控制设备等等。  
楼宇配电  
电焊机

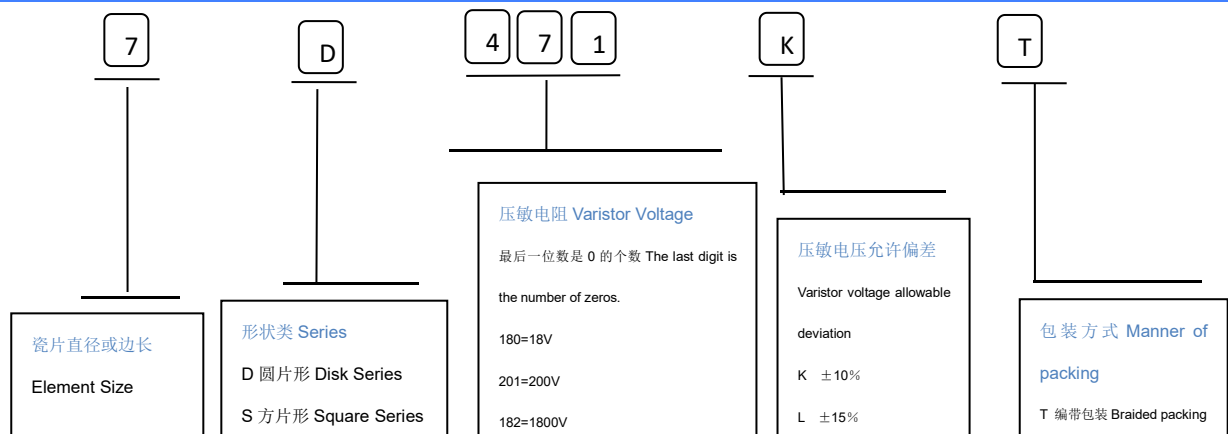
### Product Profile

The body of varistor is a matrix structure composed of zinc oxide particles. The grain boundaries between particles are similar to the electrical characteristics of bidirectional PN junctions. When the voltage is low, these grain boundaries are in the high impedance state, and when the voltage is high, they will be in the breakdown state, which is a kind of non-linear device.

### Application

Communication base station power supply  
Railway signal power supply  
Low voltage distribution equipment, control equipment, etc. below 1000V  
Building distribution  
Electric welder

### 产品料号代码 HOW TO ORDER



### 产品外形 Product Shape

| Bulk Straight<br>标准外形 | Cutting Straight<br>切短脚 | Out Forming<br>外弯脚 | Y-Forming<br>Y 型脚 | Cutting Bending<br>折脚 |
|-----------------------|-------------------------|--------------------|-------------------|-----------------------|
|                       |                         |                    |                   |                       |

### □ K 的详解 Detailed explanation of

| □ 中的内容 | K | KJ | KH | KH+ |
|--------|---|----|----|-----|
|--------|---|----|----|-----|

| The content of the blank box                                                |                                                                                                                                 |                                                              |                                                                                                                                                                                         |                                                             |                                                                                                                                           |                                                              |                                                                                                                                                            |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 产品级别<br>Product Level                                                       | 普通型<br>conventional type                                                                                                        |                                                              | 加强型<br>Reinforced type                                                                                                                                                                  |                                                             | 超强型<br>Superstrong type                                                                                                                   |                                                              | 定制型<br>Customized                                                                                                                                          |
| 性能参数<br>property parameter                                                  | 1 次脉冲最大电<br>流<br>Withstanding<br>surge<br>Current<br>(Imax)<br>(A)                                                              | 电压冲击 15 次<br>Impulse voltage15<br>Times<br>(1.2/50μs)<br>(V) | 1 次脉冲最大电<br>流<br>Withstanding<br>surge<br>Current<br>(Imax)<br>(A)                                                                                                                      | 电流冲击 15 次<br>Impulse current<br>15<br>Times (8/20μs)<br>(A) | 1 次脉冲最大电<br>流<br>Withstanding<br>surge<br>Current<br>(Imax)<br>(A)                                                                        | 电压冲击 40 次<br>Impulse voltage40<br>Times<br>(1.2/50μs)<br>(V) | 超出左边栏的脉冲<br>标准的特殊规格<br>Super high Energy                                                                                                                   |
| 5D                                                                          | 400                                                                                                                             | 1000                                                         | 800                                                                                                                                                                                     | 250                                                         | 800                                                                                                                                       | 1000                                                         | 举例 1 Example<br>14D 满足 20D 的脉<br>冲性能要求 14D<br>instead of 20D<br>举例 2 Example<br>14D561KH+ 能 达<br>到 6KV/3KA 100<br>次<br>14D561KH+ reach<br>6KV/3KA 100times |
| 7D                                                                          | 1200                                                                                                                            | 2000                                                         | 1750                                                                                                                                                                                    | 500                                                         | 1750                                                                                                                                      | 2000                                                         |                                                                                                                                                            |
| 10D                                                                         | 1500                                                                                                                            | 4000                                                         | 3500                                                                                                                                                                                    | 1500                                                        | 3500                                                                                                                                      | 4000                                                         |                                                                                                                                                            |
| 14D                                                                         | 4500                                                                                                                            | 6000                                                         | 6000                                                                                                                                                                                    | 3000                                                        | 6000                                                                                                                                      | 6000                                                         |                                                                                                                                                            |
| 20D                                                                         | 6500                                                                                                                            | 10000                                                        | 10000                                                                                                                                                                                   | 5000                                                        | 10000                                                                                                                                     | 10000                                                        |                                                                                                                                                            |
| 符合国际和国<br>家标准<br>Compliance with<br>international and<br>national standards | IEC61051-1 GB/T10193<br>IEC61051-2 GB/T10194<br>IEC61051-2-2 GBT10195<br>CSA-C22.2<br>UL1449 第三版 The third edition of<br>UL1449 |                                                              | 包含左栏, 并增加以下标准:<br>Include the left column and add the<br>following criteria:<br>IEC60950-1:2005/Annex Q<br>GB4943.1-2011<br>GB8898-2011<br>UL1449 第 4 版 The fourth<br>edition of UL1449 |                                                             | 包含左栏, 并增加以下标准:<br>Include the left column and add the<br>following criteria:<br>IEC61000-4-5 GB/T17626.5<br>IEC61643-331<br>GB/T18802.331 |                                                              |                                                                                                                                                            |

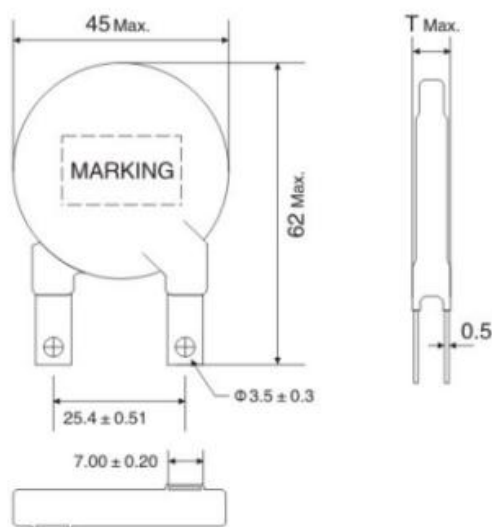
备注:1 上表仅适用于压敏电压 82V 以上规格的产品。2 上表电压冲击 15 次/40 次仅适用于压敏电压 430V 及以上规格的产品。

Remarks: 1 The above table is only applicable to products with voltage sensitive voltage of more than 82V.

2The above table voltage shock 15 times/40 times only applies to products with voltage sensitive voltage 430V or above.

## 产品尺寸

单位 (UNIT) :mm



## 40D 系列 电气参数 40D Series Electrical Parameters

| 型号规格<br>Part NO | 压敏电压<br>Varistor Voltage |           | 最大允许使用电压<br>Maximum allowable voltage |      | 最大限制电压<br>Maximum Limited Voltage | 通流容量<br>Withstanding Surge current ( 8/20 μ s ) times |    | 静态功率<br>Rated Wattage | 能量耐量 Energy<br>( 2ms ) |      |
|-----------------|--------------------------|-----------|---------------------------------------|------|-----------------------------------|-------------------------------------------------------|----|-----------------------|------------------------|------|
|                 | 0.1mA                    |           | AC                                    | DC   | Ipp200A                           | 1t                                                    | 2t | ( W )                 | μ S                    | J    |
|                 | (V)                      |           | (V)                                   |      | (V)                               | (A)                                                   |    |                       |                        |      |
| 40D201K         | 200                      | 185-225   | 130                                   | 170  | 340                               | 40                                                    | 20 | 1.4                   | 10/1000                | 260  |
| 40D221K         | 220                      | 198-242   | 140                                   | 180  | 360                               | 40                                                    | 20 | 1.4                   | 10/1000                | 280  |
| 40D241K         | 240                      | 216-264   | 150                                   | 200  | 395                               | 40                                                    | 20 | 1.4                   | 10/1000                | 300  |
| 40D271K         | 270                      | 243-297   | 175                                   | 225  | 455                               | 40                                                    | 20 | 1.4                   | 10/1000                | 340  |
| 40D301K         | 300                      | 270-330   | 190                                   | 250  | 500                               | 40                                                    | 20 | 1.4                   | 10/1000                | 360  |
| 40D331K         | 330                      | 297-363   | 210                                   | 275  | 550                               | 40                                                    | 20 | 1.4                   | 10/1000                | 380  |
| 40D361K         | 360                      | 324-396   | 230                                   | 300  | 595                               | 40                                                    | 20 | 1.4                   | 10/1000                | 405  |
| 40D391K         | 390                      | 351-429   | 250                                   | 320  | 650                               | 40                                                    | 20 | 1.4                   | 10/1000                | 435  |
| 40D431K         | 430                      | 387-473   | 275                                   | 350  | 710                               | 40                                                    | 20 | 1.4                   | 10/1000                | 500  |
| 40D471K         | 470                      | 423-517   | 300                                   | 385  | 775                               | 40                                                    | 20 | 1.4                   | 10/1000                | 505  |
| 40D511K         | 510                      | 459-561   | 320                                   | 415  | 845                               | 40                                                    | 20 | 1.4                   | 10/1000                | 505  |
| 40D561K         | 560                      | 504-616   | 350                                   | 460  | 925                               | 40                                                    | 20 | 1.4                   | 10/1000                | 510  |
| 40D621K         | 620                      | 558-682   | 385                                   | 505  | 1025                              | 40                                                    | 20 | 1.4                   | 10/1000                | 515  |
| 40D681K         | 680                      | 612-748   | 420                                   | 560  | 1120                              | 40                                                    | 20 | 1.4                   | 10/1000                | 560  |
| 40D821K         | 820                      | 738-902   | 510                                   | 670  | 1355                              | 40                                                    | 20 | 1.4                   | 10/1000                | 680  |
| 40D911K         | 910                      | 819-1001  | 550                                   | 745  | 1500                              | 40                                                    | 20 | 1.4                   | 10/1000                | 750  |
| 40D102K         | 1000                     | 900-1100  | 625                                   | 825  | 1650                              | 40                                                    | 20 | 1.4                   | 10/1000                | 780  |
| 40D122K         | 1200                     | 1080-1320 | 750                                   | 980  | 1980                              | 40                                                    | 20 | 1.4                   | 10/1000                | 800  |
| 40D152K         | 1500                     | 1350-1650 | 900                                   | 1220 | 2475                              | 40                                                    | 20 | 1.4                   | 10/1000                | 900  |
| 40D182K         | 1800                     | 1620-1980 | 1000                                  | 1465 | 2970                              | 40                                                    | 20 | 1.4                   | 10/1000                | 1080 |

注：压敏电压测试电流 DC1Ma 工作环境温度：-45℃~+85℃ 加强型温度：-45℃~+125℃压敏电压温度变化率：<0.05/℃

Note: Voltage-sensitive voltage test current DC1Ma working environment temperature: - 45 ~85, Intensified temperature: - 45 +125, temperature change rate of voltage-sensitive voltage: < 0.05/.

## Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.