



E480232

## Features

- Fast Response Time
- Glass Passivated Junction and Plastic Package Devices
- Low Incremental Surge Resistance
- High Temperature Soldering Guaranteed
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- For Bidirectional Devices Add "C" To The Suffix of The Part Number: i.e. 15KP17CA for 5% Tolerance

## Mechanical Data

- Polarity :Color Band Denotes Cathodes Except Bipolar
- Weight: 0.07 ounce, 2.5 grams
- Terminals: Plated Axial leads, Solderable Per MIL-STD-750, Methode 2026

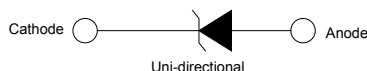
## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C

|                                                        |                                              |              |                                                       |
|--------------------------------------------------------|----------------------------------------------|--------------|-------------------------------------------------------|
| Peak Pulse Power Dissipation with a 10/1000µs Waveform | $P_{PPM}$                                    | 15000W(Min.) |                                                       |
| Steady State Power Dissipation                         | $P_{M(AV)}$                                  | 8.0 W        | $T_L=75^{\circ}\text{C}$ , Lead lengths.375", (9.5mm) |
| Response Time                                          | typically less than 1.0ps from 0 Volts to BV |              |                                                       |
|                                                        | bidirectional less than 10ns                 |              |                                                       |

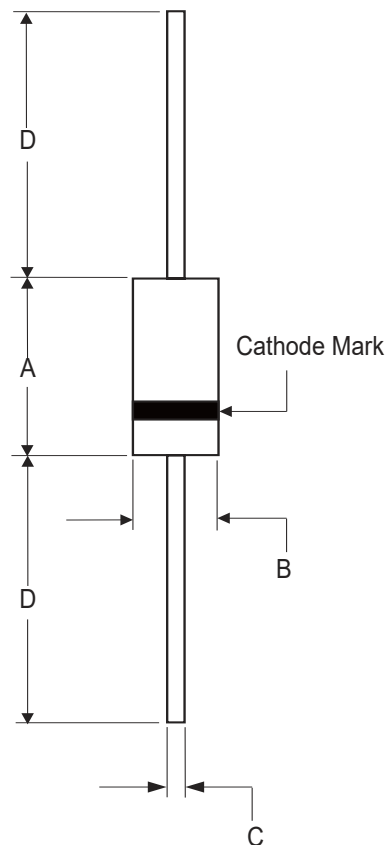
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a.

Pin Configuration:



**15000Watts TVS**  
**17 to 280 Volts**

R-6



| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 0.340  | 0.360 | 8.60  | 9.10  |      |
| B   | 0.340  | 0.360 | 8.60  | 9.10  |      |
| C   | 0.048  | 0.052 | 1.20  | 1.32  |      |
| D   | 1.000  | ----- | 25.40 | ----- |      |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC<br>PART NUMBER |           | REVERSE<br>STAND- OFF<br>VOLTAGE<br>$V_{RWM}$ | BREAKDOWN<br>VOLTAGE $V_{BR}$<br>MIN. @ $I_T$ | BREAKDOWN<br>VOLTAGE $V_{BR}$<br>MAX. @ $I_T$ | TEST<br>CURRENT $I_T$<br>(mA) | PEAK PULSE<br>CURRENT<br>$I_{PP}$ | MAXIMUM<br>REVERSE<br>LEAKAGE<br>$I_R$ @ $V_{RWM}$ | CLAMPING<br>VOLTAGE $V_C$<br>@ $I_{PP}$ |
|--------------------|-----------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|-------------------------------|-----------------------------------|----------------------------------------------------|-----------------------------------------|
| UNI-POLAR          | BI-POLAR  | V                                             | V                                             | V                                             | mA                            | A                                 | $\mu A$                                            | V                                       |
| 15KP17A            | 15KP17CA  | 17                                            | 18.9                                          | 20.79                                         | 50                            | 512                               | 5000                                               | 29.3                                    |
| 15KP18A            | 15KP18CA  | 18                                            | 20.0                                          | 22.01                                         | 50                            | 485                               | 5000                                               | 30.9                                    |
| 15KP20A            | 15KP20CA  | 20                                            | 22.2                                          | 24.46                                         | 20                            | 437                               | 1500                                               | 34.3                                    |
| 15KP22A            | 15KP22CA  | 22                                            | 24.4                                          | 26.91                                         | 10                            | 404                               | 500                                                | 37.1                                    |
| 15KP24A            | 15KP24CA  | 24                                            | 26.7                                          | 29.35                                         | 5                             | 369                               | 150                                                | 40.5                                    |
| 15KP26A            | 15KP26CA  | 26                                            | 28.9                                          | 31.8                                          | 5                             | 347                               | 50                                                 | 44                                      |
| 15KP28A            | 15KP28CA  | 28                                            | 31.1                                          | 34.24                                         | 5                             | 316                               | 25                                                 | 47.5                                    |
| 15KP30A            | 15KP30CA  | 30                                            | 33.3                                          | 36.69                                         | 5                             | 296                               | 15                                                 | 50.7                                    |
| 15KP33A            | 15KP33CA  | 33                                            | 36.7                                          | 40.4                                          | 5                             | 274                               | 10                                                 | 54.8                                    |
| 15KP36A            | 15KP36CA  | 36                                            | 40.0                                          | 44                                            | 5                             | 251                               | 10                                                 | 59.7                                    |
| 15KP40A            | 15KP40CA  | 40                                            | 44.4                                          | 48.9                                          | 5                             | 228                               | 10                                                 | 65.8                                    |
| 15KP43A            | 15KP43CA  | 43                                            | 47.8                                          | 52.6                                          | 5                             | 215                               | 10                                                 | 69.7                                    |
| 15KP45A            | 15KP45CA  | 45                                            | 50.0                                          | 55                                            | 5                             | 205                               | 10                                                 | 73                                      |
| 15KP48A            | 15KP48CA  | 48                                            | 53.3                                          | 58.7                                          | 5                             | 193                               | 10                                                 | 77.7                                    |
| 15KP51A            | 15KP51CA  | 51                                            | 56.7                                          | 62.4                                          | 5                             | 181                               | 10                                                 | 82.8                                    |
| 15KP54A            | 15KP54CA  | 54                                            | 60.0                                          | 66                                            | 5                             | 171                               | 10                                                 | 87.5                                    |
| 15KP58A            | 15KP58CA  | 58                                            | 64.4                                          | 70.9                                          | 5                             | 160                               | 10                                                 | 94                                      |
| 15KP60A            | 15KP60CA  | 60                                            | 66.7                                          | 73.4                                          | 5                             | 154                               | 10                                                 | 97.3                                    |
| 15KP64A            | 15KP64CA  | 64                                            | 71.1                                          | 78.3                                          | 5                             | 144                               | 10                                                 | 104                                     |
| 15KP70A            | 15KP70CA  | 70                                            | 77.8                                          | 85.6                                          | 5                             | 132                               | 10                                                 | 114                                     |
| 15KP75A            | 15KP75CA  | 75                                            | 83.3                                          | 91.7                                          | 5                             | 123                               | 10                                                 | 122                                     |
| 15KP78A            | 15KP78CA  | 78                                            | 86.7                                          | 95.4                                          | 5                             | 119                               | 10                                                 | 126                                     |
| 15KP85A            | 15KP85CA  | 85                                            | 94.4                                          | 104                                           | 5                             | 109                               | 10                                                 | 137                                     |
| 15KP90A            | 15KP90CA  | 90                                            | 100.0                                         | 110.1                                         | 5                             | 103                               | 10                                                 | 146                                     |
| 15KP100A           | 15KP100CA | 100                                           | 111.0                                         | 122.3                                         | 5                             | 93                                | 10                                                 | 162                                     |
| 15KP110A           | 15KP110CA | 110                                           | 122.0                                         | 134.5                                         | 5                             | 84                                | 10                                                 | 178                                     |
| 15KP120A           | 15KP120CA | 120                                           | 133.0                                         | 146.8                                         | 5                             | 78                                | 10                                                 | 193                                     |
| 15KP130A           | 15KP130CA | 130                                           | 144.0                                         | 159                                           | 5                             | 72                                | 10                                                 | 209                                     |
| 15KP150A           | 15KP150CA | 150                                           | 167.0                                         | 183.5                                         | 5                             | 62                                | 10                                                 | 243                                     |
| 15KP160A           | 15KP160CA | 160                                           | 178.0                                         | 195.7                                         | 5                             | 58                                | 10                                                 | 259                                     |
| 15KP170A           | 15KP170CA | 170                                           | 189.0                                         | 207.9                                         | 5                             | 55                                | 10                                                 | 275                                     |
| 15KP180A           | 15KP180CA | 180                                           | 200.0                                         | 220.1                                         | 5                             | 52                                | 10                                                 | 291                                     |
| 15KP200A           | 15KP200CA | 200                                           | 222.0                                         | 244.6                                         | 5                             | 47                                | 10                                                 | 322                                     |
| 15KP220A           | 15KP220CA | 220                                           | 245.0                                         | 269.1                                         | 5                             | 42                                | 10                                                 | 356                                     |
| 15KP240A           | 15KP240CA | 240                                           | 267.0                                         | 293.5                                         | 5                             | 39                                | 10                                                 | 388                                     |
| 15KP260A           | 15KP260CA | 260                                           | 289.0                                         | 318                                           | 5                             | 36                                | 10                                                 | 419                                     |
| 15KP280A           | 15KP280CA | 280                                           | 311.0                                         | 342.4                                         | 5                             | 33                                | 10                                                 | 452                                     |

For bi-directional type having  $V_{RWM}$  of 30 volts and less , the  $I_R$  limit is double.  
For parts without A , the  $V_{BR}$  is  $\pm 10\%$

## Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

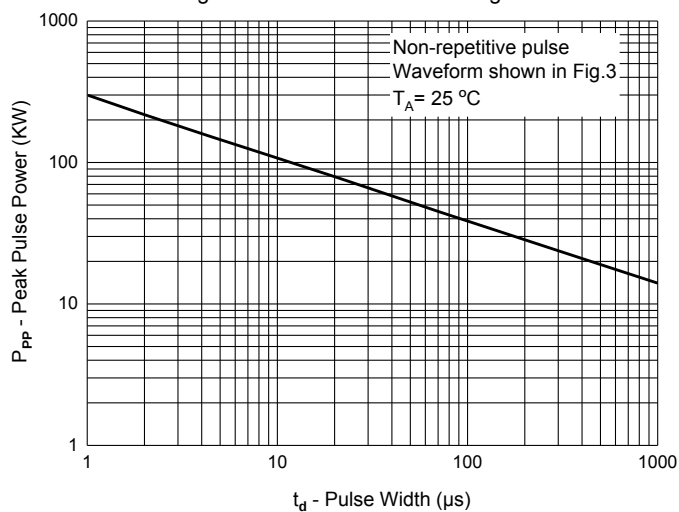


Fig. 2 - Typical Junction Capacitance

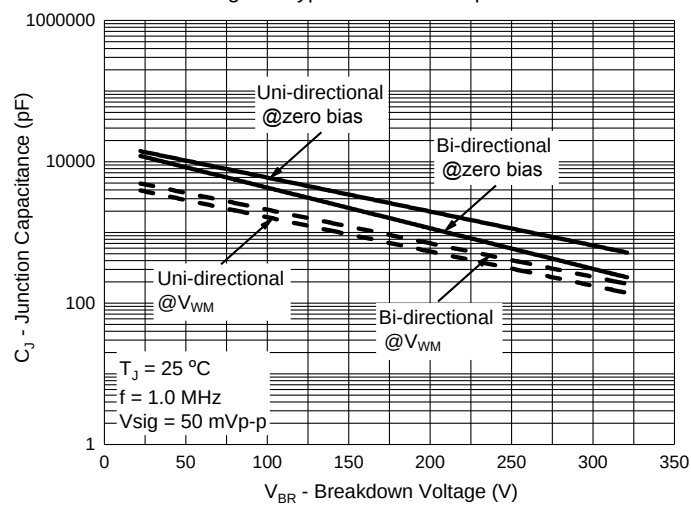


Fig. 3 - Pulse Waveform

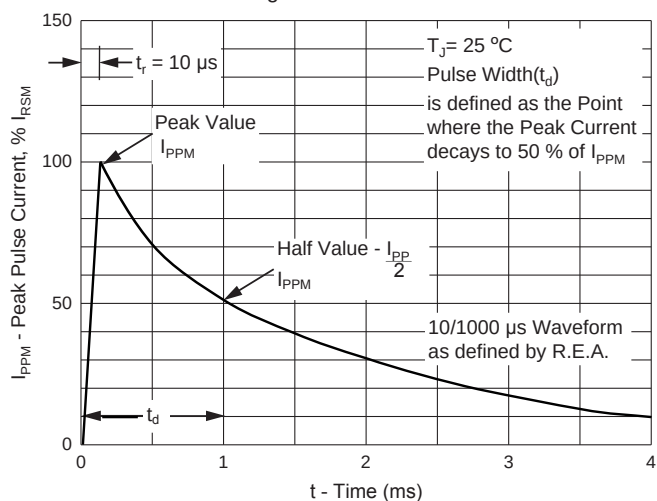
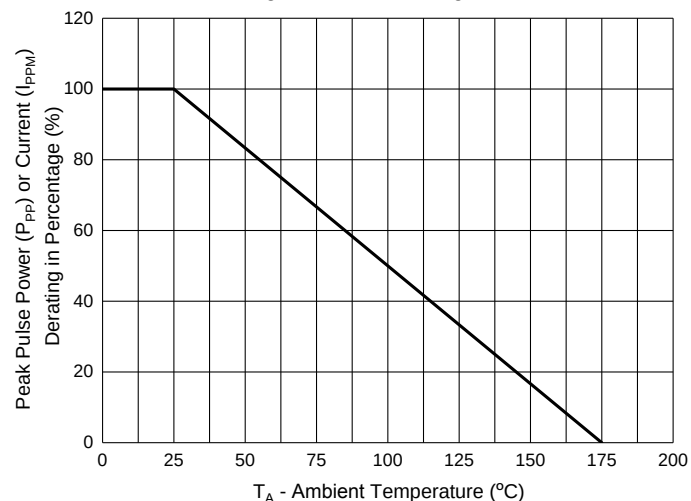


Fig. 4 - Pulse Derating Curve



## Ordering Information

| Device           | Packing                       |
|------------------|-------------------------------|
| (Part Number)-TP | Tape&Reel: 500pcs/Reel        |
| (Part Number)-AP | Ammo Packing: 450pcs/Ammo Box |
| (Part Number)-BP | Bulk: 4.8Kpcs/Carton          |

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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