

| | |
|---|----------------|
|  | 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

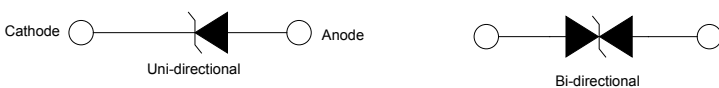
Maximum Ratings

- 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 | | |

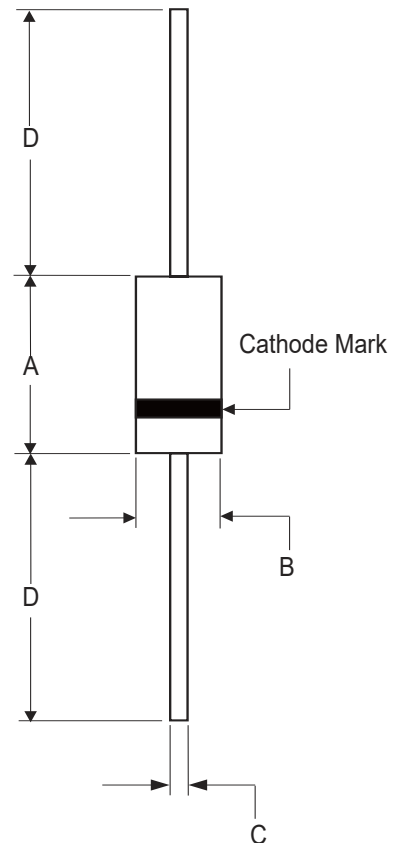
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a.

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 PART NUMBER | | REVERSE STAND- OFF VOLTAGE V_{RWM} | BREAKDOWN VOLTAGE V_{BR} MIN. @ I_T | BREAKDOWN VOLTAGE V_{BR} MAX. @ I_T | TEST CURRENT I_T (mA) | PEAK PULSE CURRENT I_{pp} | MAXIMUM REVERSE LEAKAGE I_R @ V_{RWM} | CLAMPING VOLTAGE V_C @ I_{pp} |
|--------------------|-----------|---|---|---|-------------------------------|-----------------------------------|--|---|
| UNI-POLAR | BI-POLAR | V | V | V | mA | A | μA | 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

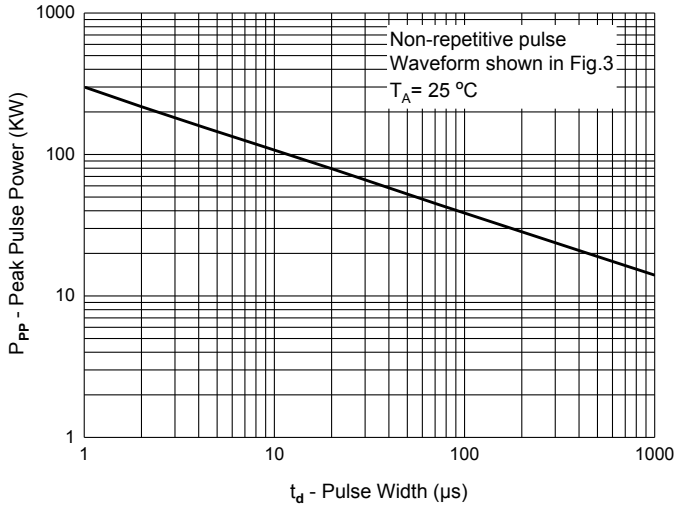


Fig. 2 - Typical Junction Capacitance

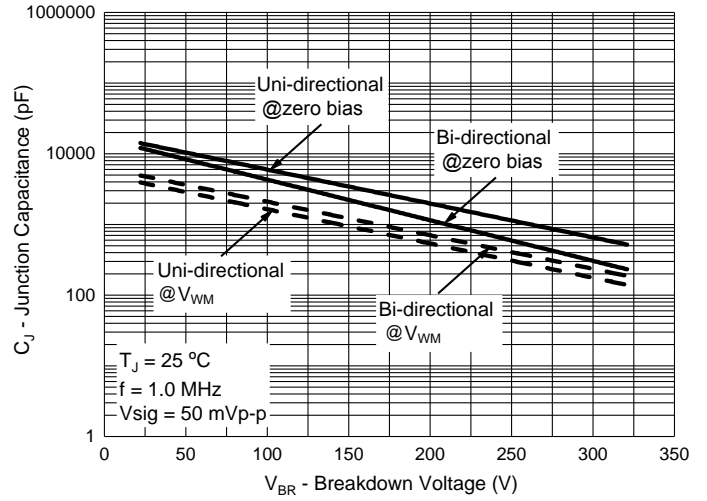


Fig. 3 - Pulse Waveform

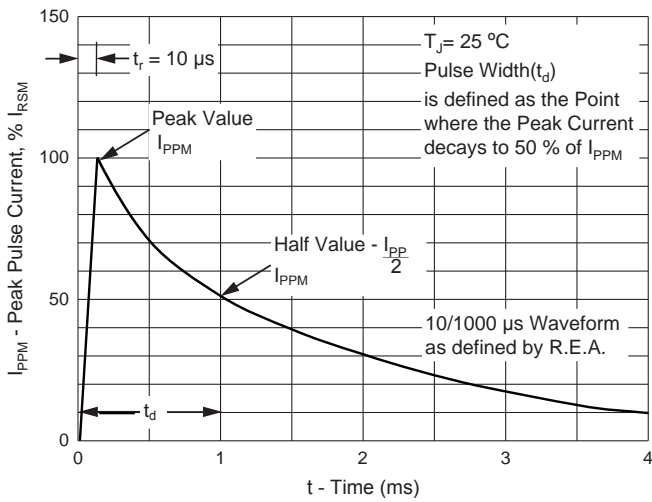
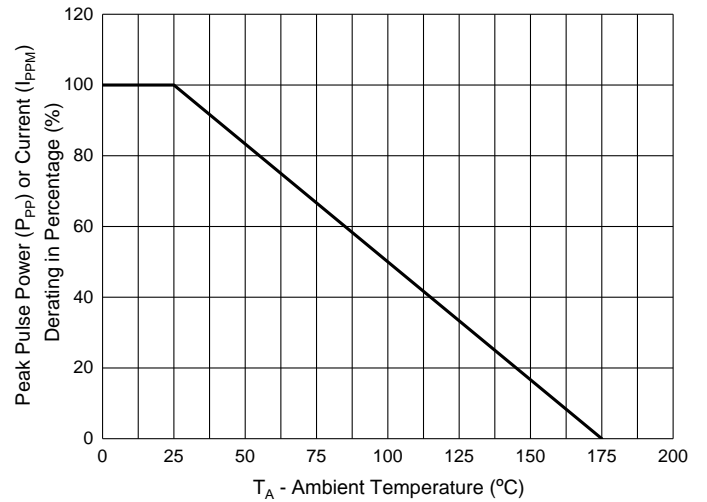


Fig. 4 - Pulse Derating Curve



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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- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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