

| | |
|---|----------------|
|  | E480232 |
|---|----------------|

Features

- Fast Response Time
- Glass Passivated Junction
- Plastic Package Devices and 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.30KP28CA 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

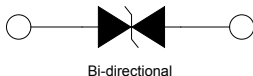
Maximum Ratings

- 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} | 30000W(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 | | |

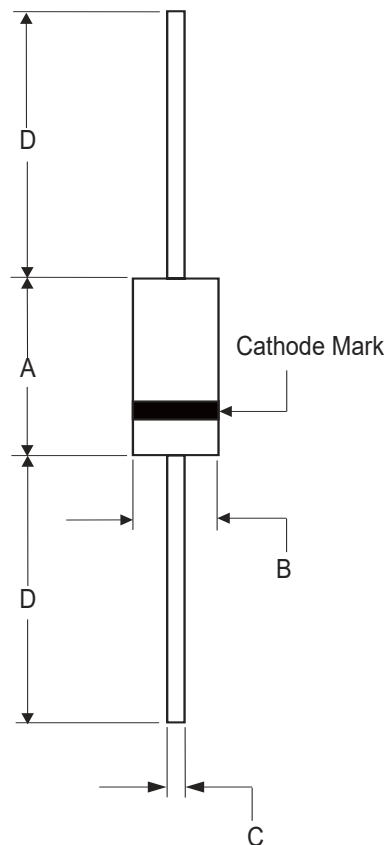
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a.

Pin Configuration:



**30000Watts TVS
28 to 288 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

| PART NUMBER | | REVERSE STAND- OFF VOLTAGE $V_{RWM}(V)$ | BREAKDOWN VOLTAGE $V_{BR}(V)$ MIN. @ I_T | BREAKDOWN VOLTAGE $V_{BR}(V)$ MAX. @ I_T | TEST CURRENT I_T (mA) | PEAK PULSE CURRENT I_{PP} (A) | REVERSE LEAKAGE @ V_{RWM} $I_R(\mu A)$ | MAXIMUM CLAMPING VOLTAGE@ I_{PP} $V_C(V)$ |
|-------------|-----------|--|--|--|-------------------------------|--|---|--|
| UNI-POLAR | BI-POLAR | | | | | | | |
| 30KP28A | 30KP28CA | 28 | 31.28 | 34.24 | 50 | 606 | 5000 | 50 |
| 30KP30A | 30KP30CA | 30 | 33.51 | 36.69 | 50 | 548.9 | 5000 | 55.2 |
| 30KP33A | 30KP33CA | 33 | 36.9 | 40.4 | 50 | 517.9 | 5000 | 58.5 |
| 30KP36A | 30KP36CA | 36 | 40.2 | 44 | 50 | 490.3 | 5000 | 61.8 |
| 30KP39A | 30KP39CA | 39 | 43.6 | 47.7 | 20 | 450.9 | 2000 | 67.2 |
| 30KP42A | 30KP42CA | 42 | 46.9 | 51.4 | 10 | 420.8 | 1000 | 72 |
| 30KP43A | 30KP43CA | 43 | 48 | 52.6 | 10 | 415.1 | 1000 | 73 |
| 30KP45A | 30KP45CA | 45 | 50.3 | 55 | 5 | 391.5 | 250 | 77.4 |
| 30KP48A | 30KP48CA | 48 | 53.6 | 58.7 | 5 | 371.3 | 150 | 81.6 |
| 30KP51A | 30KP51CA | 51 | 57 | 62.4 | 5 | 350.7 | 50 | 86.4 |
| 30KP54A | 30KP54CA | 54 | 60.3 | 66 | 5 | 331.5 | 20 | 91.4 |
| 30KP58A | 30KP58CA | 58 | 64.8 | 70.9 | 5 | 327.9 | 20 | 92.4 |
| 30KP60A | 30KP60CA | 60 | 67 | 73.4 | 5 | 297.1 | 15 | 102 |
| 30KP64A | 30KP64CA | 64 | 71.5 | 78.3 | 5 | 291.3 | 10 | 104 |
| 30KP66A | 30KP66CA | 66 | 73.7 | 80.7 | 5 | 283.2 | 10 | 107 |
| 30KP70A | 30KP70CA | 70 | 78.2 | 85.6 | 5 | 278 | 10 | 109 |
| 30KP71A | 30KP71CA | 71 | 79.3 | 86.8 | 5 | 271.7 | 10 | 111.5 |
| 30KP72A | 30KP72CA | 72 | 80.4 | 88.1 | 5 | 265.8 | 10 | 114 |
| 30KP75A | 30KP75CA | 75 | 83.8 | 91.7 | 5 | 253.8 | 10 | 119.4 |
| 30KP78A | 30KP78CA | 78 | 87.1 | 95.4 | 5 | 234.9 | 10 | 129 |
| 30KP84A | 30KP84CA | 84 | 93.8 | 102.7 | 5 | 217.7 | 10 | 139.2 |
| 30KP90A | 30KP90CA | 90 | 100.5 | 110.1 | 5 | 207 | 10 | 146.4 |
| 30KP96A | 30KP96CA | 96 | 107.2 | 117.4 | 5 | 194.2 | 10 | 156 |
| 30KP102A | 30KP102CA | 102 | 113.9 | 124.7 | 5 | 183 | 10 | 165.6 |
| 30KP108A | 30KP108CA | 108 | 120.6 | 132.1 | 5 | 172.9 | 10 | 175.2 |
| 30KP120A | 30KP120CA | 120 | 134 | 146.8 | 5 | 155.9 | 10 | 194.4 |
| 30KP132A | 30KP132CA | 132 | 147.4 | 161.4 | 5 | 142.3 | 10 | 213 |
| 30KP144A | 30KP144CA | 144 | 160.8 | 176.1 | 5 | 135.8 | 10 | 223.2 |
| 30KP150A | 30KP150CA | 150 | 167.6 | 183.5 | 5 | 129.8 | 10 | 233.4 |
| 30KP156A | 30KP156CA | 156 | 174.3 | 190.8 | 5 | 123.7 | 10 | 245 |
| 30KP160A | 30KP160CA | 160 | 178.7 | 195.7 | 5 | 120 | 10 | 252.6 |
| 30KP168A | 30KP168CA | 168 | 187.7 | 205.5 | 5 | 111.2 | 10 | 272.4 |
| 30KP170A | 30KP170CA | 170 | 189.9 | 207.9 | 5 | 110.2 | 10 | 275 |
| 30KP180A | 30KP180CA | 180 | 201.1 | 220.1 | 5 | 104.3 | 10 | 290.4 |
| 30KP198A | 30KP198CA | 198 | 221.2 | 242.2 | 5 | 94.7 | 10 | 319.8 |
| 30KP216A | 30KP216CA | 216 | 241.3 | 264.2 | 5 | 86.9 | 10 | 348.6 |
| 30KP240A | 30KP240CA | 240 | 268.1 | 293.5 | 5 | 78.3 | 10 | 387 |
| 30KP258A | 30KP258CA | 258 | 288.2 | 315.5 | 5 | 72.8 | 10 | 416.4 |
| 30KP260A | 30KP260CA | 260 | 290.4 | 318 | 5 | 72.8 | 10 | 416 |
| 30KP270A | 30KP270CA | 270 | 301.6 | 330.2 | 5 | 69.5 | 10 | 436.2 |
| 30KP280A | 30KP280CA | 280 | 312.8 | 342.4 | 5 | 65.3 | 10 | 464 |
| 30KP288A | 30KP288CA | 288 | 321.7 | 352.2 | 5 | 64.5 | 10 | 469.9 |

For bi-directional type having V_{RWM} of 60 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

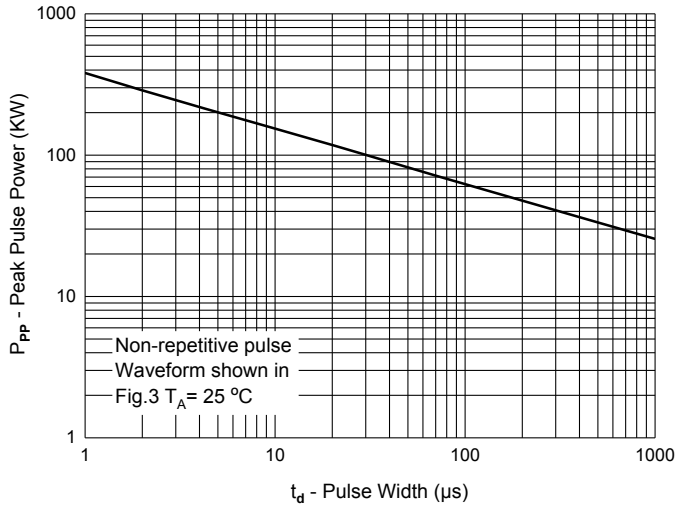


Fig. 2 - Typical Junction Capacitance

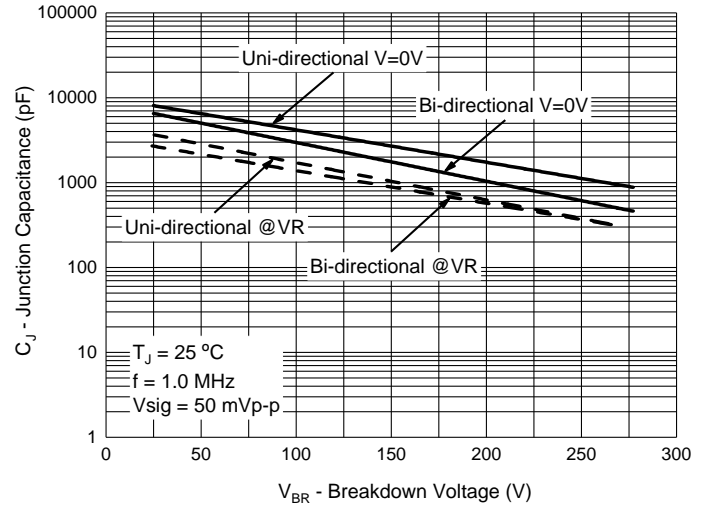


Fig. 3 - Pulse Waveform

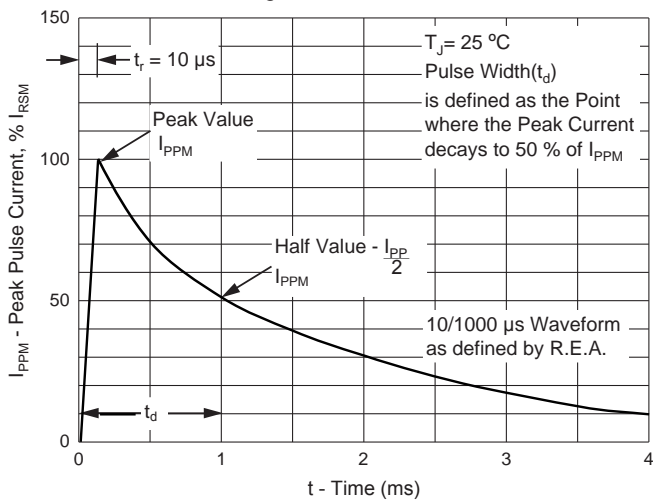
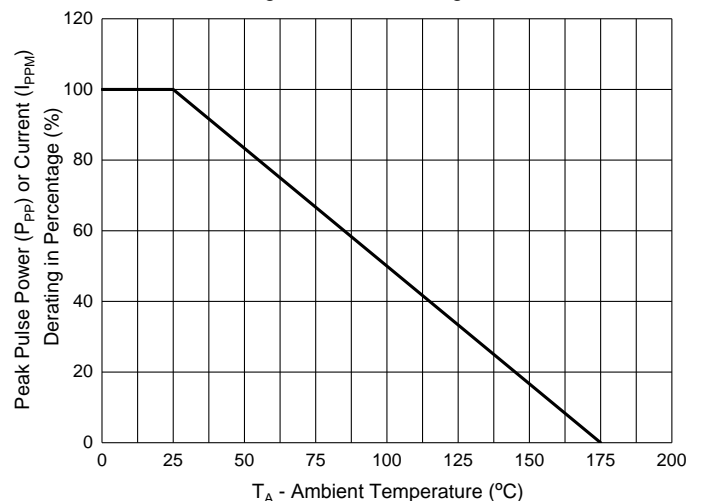


Fig. 4 - Pulse Derating Curve



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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- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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