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

Features

- Low Zener Impepance
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Unidirectional And Bidirectional
- For Bidirectional Devices Add "C" To The Suffix Of The Part Number: i.e. P4KE6.8CA for 5% Tolerance Devices
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Mechanical Data

- Polarity :Color Band Denotes Cathodes Except Bipolar
- Mounting Position :Any
- Weight :0.012ounce,0.3grams

Maximum Ratings

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

| | | | |
|--------------------------------|--|------|-------------------|
| Peak Pulse Power Dissipation | P_{PPM} | 400W | $T_A=25^{\circ}C$ |
| Steady State Power Dissipatoin | $P_{M(AV)}$ | 1 W | $T_L=75^{\circ}C$ |
| Response Time | Unidirectional $<1 \times 10^{-12}$ Seconds; | | |
| | Bidirectoinal $<5 \times 10^{-9}$ Seconds | | |

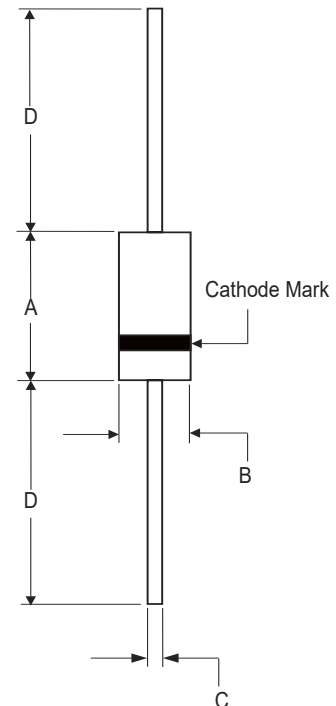
Note:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

Pin Configuration:



**400WATTS TVS
6.8 to 550 VOLTS**

DO-41



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.160 | 0.205 | 4.10 | 5.20 | |
| B | 0.080 | 0.107 | 2.00 | 2.70 | Φ |
| C | 0.028 | 0.035 | 0.71 | 0.90 | Φ |
| D | 1.000 | ----- | 25.40 | ----- | |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC Part Number | | Breakdown Voltage $V_{(BR)}@I_T$ (Volts) | | TEST Current I_T | Reverse Standoff Voltage V_{WM} | Maximum Reverse Leakage $I_R@V_{WM}$ | Maximum Clamping Voltage $V_C@I_{PP}$ | Maximum Peak Pulse Current (I_{PP}) | Maximum Temperature Coefficient Of $V_{(BR)}$ |
|-----------------|-----------|--|-------|--------------------|-----------------------------------|--------------------------------------|---------------------------------------|---|---|
| Uni-Polar | Bi-Polar | Min | Max | mA(DC) | V | μA | V | A | (%/°C) |
| P4KE6.8A | P4KE6.8CA | 6.45 | 7.14 | 10 | 5.8 | 1000 | 10.5 | 39 | 0.057 |
| P4KE7.5A | P4KE7.5CA | 7.13 | 7.88 | 10 | 6.4 | 500 | 11.3 | 36.3 | 0.061 |
| P4KE8.2A | P4KE8.2CA | 7.79 | 8.61 | 10 | 7.02 | 200 | 12.1 | 33.9 | 0.060 |
| P4KE9.1A | P4KE9.1CA | 8.65 | 9.55 | 1 | 7.78 | 50 | 13.4 | 30.6 | 0.068 |
| P4KE10A | P4KE10CA | 9.5 | 10.5 | 1 | 8.55 | 10 | 14.5 | 28.3 | 0.073 |
| P4KE11A | P4KE11CA | 10.5 | 11.6 | 1 | 9.4 | 5 | 15.6 | 26.3 | 0.075 |
| P4KE12A | P4KE12CA | 11.4 | 12.6 | 1 | 10.2 | 5 | 16.7 | 24.6 | 0.078 |
| P4KE13A | P4KE13CA | 12.4 | 13.7 | 1 | 11.1 | 1 | 18.2 | 22.5 | 0.081 |
| P4KE15A | P4KE15CA | 14.3 | 15.8 | 1 | 12.8 | 1 | 21.2 | 19.3 | 0.084 |
| P4KE16A | P4KE16CA | 15.2 | 16.8 | 1 | 13.6 | 1 | 22.5 | 18.2 | 0.086 |
| P4KE18A | P4KE18CA | 17.1 | 18.9 | 1 | 15.3 | 1 | 25.5 | 16.1 | 0.088 |
| P4KE20A | P4KE20CA | 19 | 21 | 1 | 17.1 | 1 | 27.7 | 14.8 | 0.090 |
| P4KE22A | P4KE22CA | 20.9 | 23.1 | 1 | 18.8 | 1 | 30.6 | 13.4 | 0.092 |
| P4KE24A | P4KE24CA | 22.8 | 25.2 | 1 | 20.5 | 1 | 33.2 | 12.3 | 0.094 |
| P4KE27A | P4KE27CA | 25.7 | 28.4 | 1 | 23.1 | 1 | 37.5 | 10.9 | 0.096 |
| P4KE30A | P4KE30CA | 28.5 | 31.5 | 1 | 25.6 | 1 | 41.4 | 9.9 | 0.097 |
| P4KE33A | P4KE33CA | 31.4 | 34.7 | 1 | 28.2 | 1 | 45.7 | 9 | 0.098 |
| P4KE36A | P4KE36CA | 34.2 | 37.8 | 1 | 30.8 | 1 | 49.9 | 8.2 | 0.099 |
| P4KE39A | P4KE39CA | 37.1 | 41 | 1 | 33.3 | 1 | 53.9 | 7.6 | 0.100 |
| P4KE43A | P4KE43CA | 40.9 | 45.2 | 1 | 36.8 | 1 | 59.3 | 6.9 | 0.101 |
| P4KE47A | P4KE47CA | 44.7 | 49.4 | 1 | 40.2 | 1 | 64.8 | 6.3 | 0.101 |
| P4KE51A | P4KE51CA | 48.5 | 53.6 | 1 | 43.6 | 1 | 70.1 | 5.8 | 0.102 |
| P4KE56A | P4KE56CA | 53.2 | 58.8 | 1 | 47.8 | 1 | 77 | 5.3 | 0.103 |
| P4KE62A | P4KE62CA | 58.9 | 65.1 | 1 | 53 | 1 | 85 | 4.8 | 0.104 |
| P4KE68A | P4KE68CA | 64.6 | 71.4 | 1 | 58.1 | 1 | 92 | 4.5 | 0.104 |
| P4KE75A | P4KE75CA | 71.3 | 78.8 | 1 | 64.1 | 1 | 103 | 4 | 0.105 |
| P4KE82A | P4KE82CA | 77.9 | 86.1 | 1 | 70.1 | 1 | 113 | 3.6 | 0.105 |
| P4KE91A | P4KE91CA | 86.5 | 95.5 | 1 | 77.8 | 1 | 125 | 3.3 | 0.106 |
| P4KE100A | P4KE100CA | 95 | 105 | 1 | 85.5 | 1 | 137 | 3 | 0.106 |
| P4KE110A | P4KE110CA | 105 | 116 | 1 | 94 | 1 | 152 | 2.7 | 0.107 |
| P4KE120A | P4KE120CA | 114 | 126 | 1 | 102 | 1 | 165 | 2.5 | 0.107 |
| P4KE130A | P4KE130CA | 124 | 137 | 1 | 111 | 1 | 179 | 2.3 | 0.107 |
| P4KE150A | P4KE150CA | 143 | 158 | 1 | 128 | 1 | 207 | 2 | 0.108 |
| P4KE160A | P4KE160CA | 152 | 168 | 1 | 136 | 1 | 219 | 1.9 | 0.108 |
| P4KE170A | P4KE170CA | 162 | 179 | 1 | 145 | 1 | 234 | 1.8 | 0.108 |
| P4KE180A | P4KE180CA | 171 | 189 | 1 | 154 | 1 | 246 | 1.7 | 0.108 |
| P4KE200A | P4KE200CA | 190 | 210 | 1 | 171 | 1 | 274 | 1.5 | 0.108 |
| P4KE220A | P4KE220CA | 209 | 231 | 1 | 185 | 1 | 328 | 1.3 | 0.108 |
| P4KE250A | P4KE250CA | 237 | 263 | 1 | 214 | 1 | 344 | 1.2 | 0.110 |
| P4KE300A | P4KE300CA | 285 | 315 | 1 | 256 | 1 | 414 | 1 | 0.110 |
| P4KE350A | P4KE350CA | 332 | 368 | 1 | 300 | 1 | 482 | 0.85 | 0.110 |
| P4KE400A | P4KE400CA | 380 | 420 | 1 | 342 | 1 | 548 | 0.75 | 0.110 |
| P4KE440A | P4KE440CA | 418 | 462 | 1 | 376 | 1 | 602 | 0.68 | 0.110 |
| P4KE480A | P4KE480CA | 456 | 504 | 1 | 408 | 1 | 658 | 0.61 | 0.110 |
| P4KE510A | P4KE510CA | 485 | 535 | 1 | 434 | 1 | 698 | 0.57 | 0.110 |
| P4KE530A | P4KE530CA | 503.5 | 556.5 | 1 | 477 | 1 | 725 | 0.55 | 0.110 |
| P4KE540A | P4KE540CA | 513 | 567 | 1 | 459 | 1 | 740 | 0.54 | 0.110 |
| P4KE550A | P4KE550CA | 522.5 | 577.5 | 1 | 495 | 1 | 760 | 0.52 | 0.110 |

Note: For bidirectional type having V_{WM} of 10 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

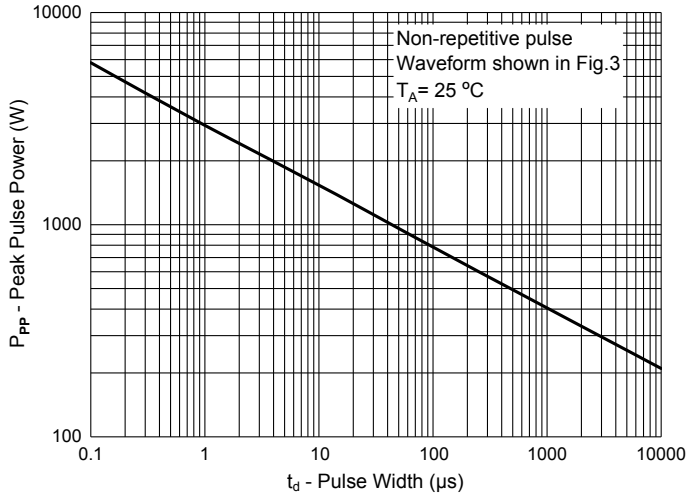


Fig. 2 - Typical Junction Capacitance

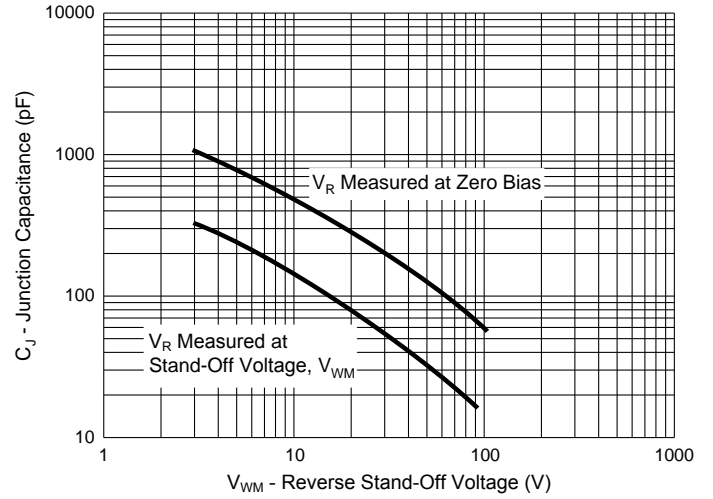


Fig. 3 - Pulse Waveform

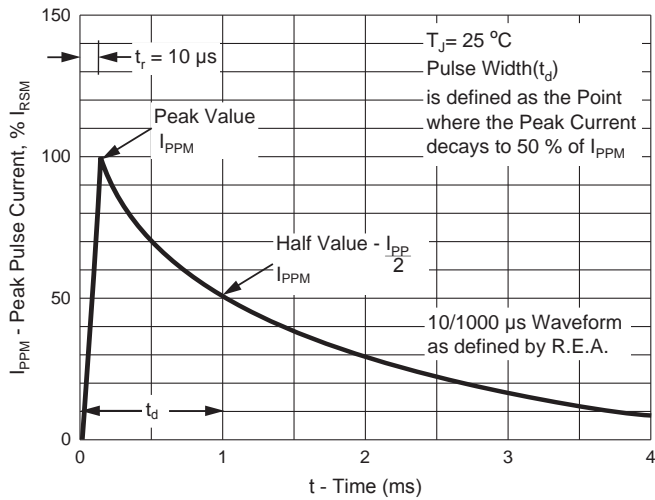
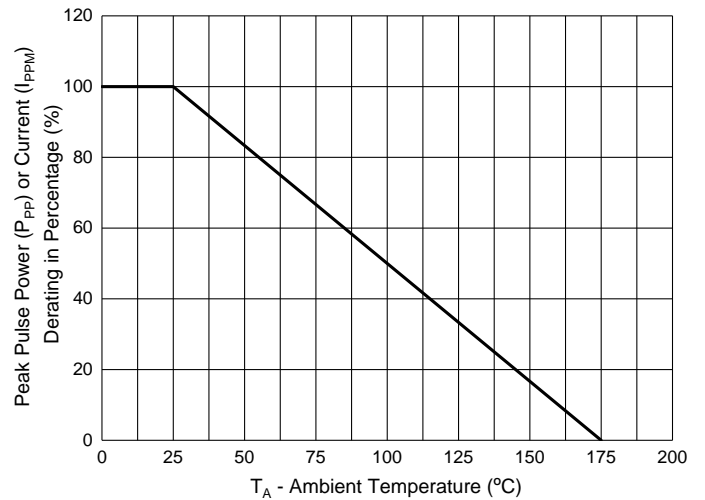


Fig. 4 - Pulse Derating Curve



Ordering Information

| Device | Packing |
|------------------|------------------------------|
| (Part Number)-TP | Tape&Reel: 5Kpcs/Reel |
| (Part Number)-AP | Ammo Packing: 5Kpcs/Ammo Box |
| (Part Number)-BP | Bulk: 50Kpcs/Carton |

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

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