



Micro Commercial Components



Micro Commercial Components
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P6KE6.8
THRU
P6KE540(C)A

600WATTS TRANSIENT
VOLTAGE SUPPRESSOR
6.8 TO 540 VOLTS

Features

- Economical series
Available in both unidirectional and bidirectional construction and suffix "C" designates bidirectional type
Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
600 watts peak pulse power dissipation and 5.8-459V VWM
UL Recognized File # E222849

- Epoxy meets UL 94 V-0 flammability rating
Moisture Sensitivity Level 1
POLARITY: Banded denotes cathode. Bidirectional not marked.
WEIGHT: 0.4 Gram(Appx.).
MOUNTING POSITION: Any.

Maximum Ratings

Peak Pulse Power Dissipation at 25°C: 600Watts
Steady State Power Dissipation: 5 Watts at TL=75 °C
3/8" Lead Length
tclamping (0 Volts to BV Min.):
Unidirectional < 1x10^-12 Seconds; Bidirectional < 5x10^-9 Seconds.
Operating and Storage Temperature: -55°C to +175°C

APPLICATION

Use in sensitive electronics protection against voltage transients induced by inductive load switching and lighting on ICs, MOSFET, signal lines of sensor units for consumer, computer, industrial, automotive and telecommunication.

DO-15

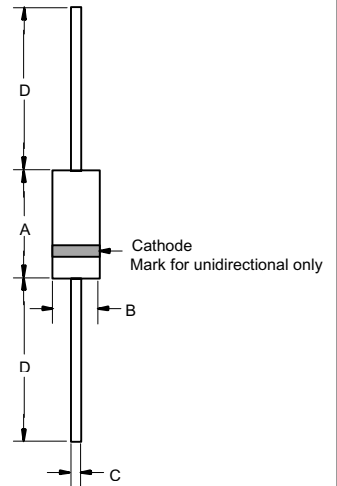


Table with 6 columns: DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. Rows include dimensions A, B, C, and D.

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

RATINGS AND CHARACTERISTICS CURVES

($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

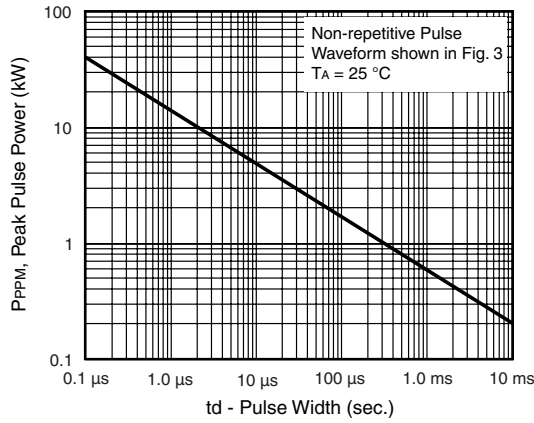


Figure 1. Peak Pulse Power Rating Curve

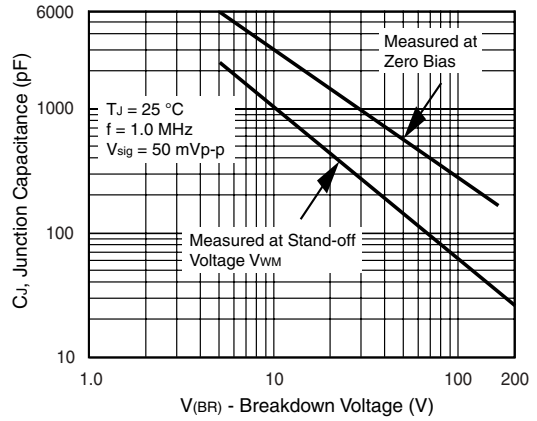


Figure 4. Typical Junction Capacitance Uni-Directional

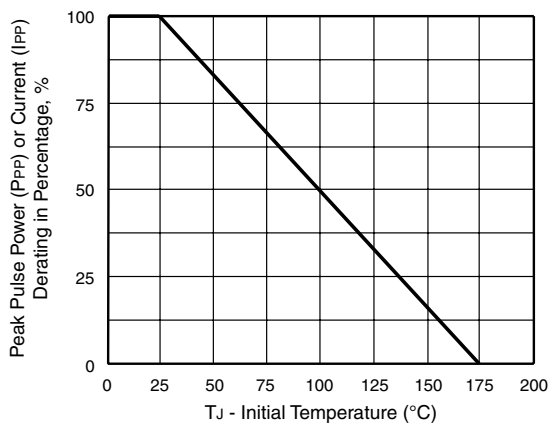


Figure 2. Pulse Power or Current versus Initial Junction Temperature

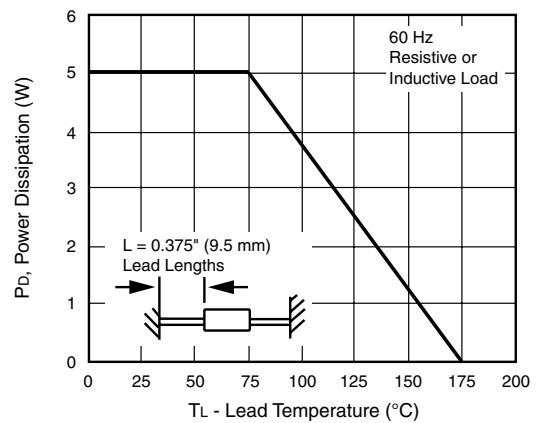


Figure 5. Power Derating Curve

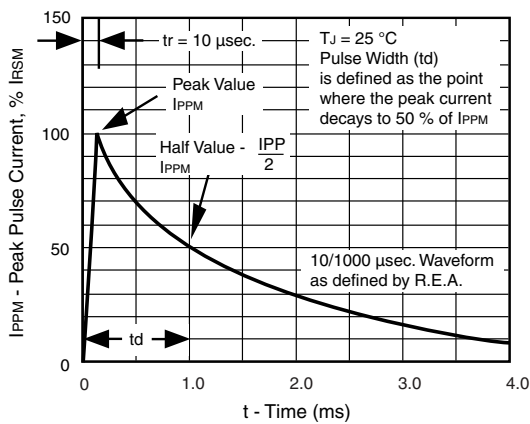


Figure 3. Pulse Waveform

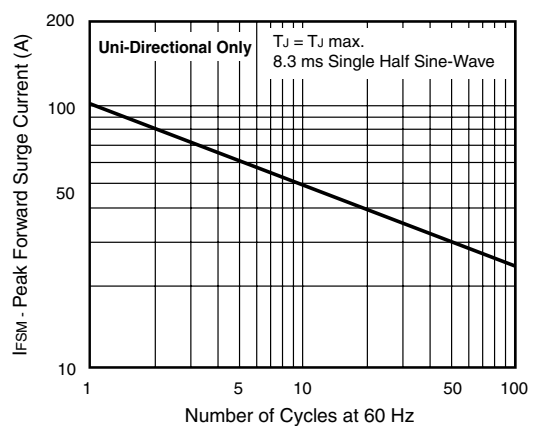


Figure 6. Maximum Non-Repetitive Forward Surge Current

P6KE6.8 thru P6KE540A



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| MCC PART NUMBER | BREAKDOWN VOLTAGE $V_{(BR)} @ I_T$ | | | TEST CURRENT I_T | RATED STANDOFF VOLTAGE V_{WM} | MAXIMUM REVERSE LEAKAGE $I_D @ V_{WM}$ | MAXIMUM CLAMPING VOLTAGE $V_C @ I_{PP}$ | MAXIMUM PEAK PULSE CURRENT I_{PP} | MAX. TEMP COEFFICIENT OF V_{BR} $V_{(BR)} (TA)$ -55°C TO 100°C |
|--------------------|--|-----|------|--------------------------|--|---|--|---|--|
| | MIN | NOM | MAX | | | | | | |
| P6KE6.8 | 6.12 | 6.8 | 7.48 | 10 | 5.5 | 1000 | 10.8 | 56 | .057 |
| P6KE6.8A | 6.45 | 6.8 | 7.14 | 10 | 5.8 | 1000 | 10.5 | 57 | .057 |
| P6KE7.5 | 6.75 | 7.5 | 8.25 | 10 | 6.05 | 500 | 11.7 | 51 | .061 |
| P6KE7.5A | 7.13 | 7.5 | 7.88 | 10 | 6.4 | 500 | 11.3 | 53 | .061 |
| P6KE8.2 | 7.38 | 8.2 | 9.02 | 10 | 6.63 | 200 | 12.5 | 48 | .065 |
| P6KE8.2A | 7.79 | 8.2 | 8.61 | 10 | 7.02 | 200 | 12.1 | 50 | .065 |
| P6KE9.1 | 8.19 | 9.1 | 10 | 1 | 7.37 | 50 | 13.8 | 44 | .068 |
| P6KE9.1A | 8.65 | 9.1 | 9.55 | 1 | 7.78 | 50 | 13.4 | 45 | .068 |
| P6KE10 | 9.0 | 10 | 11 | 1 | 8.1 | 10 | 15 | 40 | .073 |
| P6KE10A | 9.5 | 10 | 10.5 | 1 | 8.55 | 10 | 14.5 | 41 | .073 |
| P6KE11 | 9.9 | 11 | 12.1 | 1 | 8.92 | 5 | 16.2 | 37 | .075 |
| P6KE11A | 10.5 | 11 | 11.6 | 1 | 9.4 | 5 | 15.6 | 38 | .075 |
| P6KE12 | 10.8 | 12 | 13.2 | 1 | 9.72 | 5 | 17.3 | 35 | .078 |
| P6KE12A | 11.4 | 12 | 12.6 | 1 | 10.2 | 5 | 16.7 | 36 | .078 |
| P6KE13 | 11.7 | 13 | 14.3 | 1 | 10.5 | 5 | 19 | 32 | .081 |
| P6KE13A | 12.4 | 13 | 13.7 | 1 | 11.1 | 5 | 18.2 | 33 | .081 |
| P6KE15 | 13.5 | 15 | 16.5 | 1 | 12.1 | 5 | 22 | 27 | .084 |
| P6KE15A | 14.3 | 15 | 15.8 | 1 | 12.8 | 5 | 21.2 | 28 | .084 |
| P6KE16 | 14.4 | 16 | 17.6 | 1 | 12.9 | 5 | 23.5 | 26 | .086 |
| P6KE16A | 15.2 | 16 | 16.8 | 1 | 13.6 | 5 | 22.5 | 27 | .086 |
| P6KE18 | 16.2 | 18 | 19.8 | 1 | 14.5 | 5 | 26.5 | 23 | .088 |
| P6KE18A | 17.1 | 18 | 18.9 | 1 | 15.3 | 5 | 25.2 | 24 | .088 |
| P6KE20 | 18 | 20 | 22 | 1 | 16.2 | 5 | 29.1 | 21 | .090 |
| P6KE20A | 19 | 20 | 21 | 1 | 17.1 | 5 | 27.7 | 22 | .090 |
| P6KE22 | 19.8 | 22 | 24.2 | 1 | 17.8 | 5 | 31.9 | 19 | .092 |
| P6KE22A | 20.9 | 22 | 23.1 | 1 | 18.8 | 5 | 30.6 | 20 | .092 |
| P6KE24 | 21.6 | 24 | 26.4 | 1 | 19.4 | 5 | 34.7 | 17 | .094 |
| P6KE24A | 22.8 | 24 | 25.2 | 1 | 20.5 | 5 | 33.2 | 18 | .094 |
| P6KE27 | 24.3 | 27 | 29.7 | 1 | 21.8 | 5 | 39.1 | 15 | .096 |
| P6KE27A | 25.7 | 27 | 28.4 | 1 | 23.1 | 5 | 37.5 | 16 | .096 |
| P6KE30 | 27 | 30 | 33 | 1 | 24.3 | 5 | 43.5 | 14 | .097 |
| P6KE30A | 28.5 | 30 | 31.5 | 1 | 25.6 | 5 | 41.4 | 14.4 | .097 |
| P6KE33 | 29.7 | 33 | 36.3 | 1 | 26.8 | 5 | 47.7 | 12.6 | .098 |
| P6KE33A | 31.4 | 33 | 34.7 | 1 | 28.2 | 5 | 45.7 | 13.2 | .098 |
| P6KE36 | 32.4 | 36 | 39.6 | 1 | 29.1 | 5 | 52 | 11.6 | .099 |
| P6KE36A | 34.2 | 36 | 37.8 | 1 | 30.8 | 5 | 49.9 | 12 | .099 |
| P6KE39 | 35.1 | 39 | 42.9 | 1 | 31.6 | 5 | 56.4 | 10.6 | .100 |
| P6KE39A | 37.1 | 39 | 41 | 1 | 33.3 | 5 | 53.9 | 11.2 | .100 |
| P6KE43 | 38.7 | 43 | 47.3 | 1 | 34.8 | 5 | 61.9 | 9.6 | .101 |
| P6KE43A | 40.9 | 43 | 45.2 | 1 | 36.8 | 5 | 59.3 | 10.1 | .101 |
| P6KE47 | 42.3 | 47 | 51.7 | 1 | 38.1 | 5 | 67.8 | 8.9 | .101 |
| P6KE47A | 44.7 | 47 | 49.4 | 1 | 40.2 | 5 | 64.8 | 9.3 | .101 |
| P6KE51 | 45.9 | 51 | 56.1 | 1 | 41.3 | 5 | 73.5 | 8.2 | .102 |
| P6KE51A | 48.5 | 51 | 53.6 | 1 | 43.6 | 5 | 70.1 | 8.6 | .102 |
| P6KE56 | 50.4 | 56 | 61.6 | 1 | 45.4 | 5 | 80.5 | 7.4 | .103 |
| P6KE56A | 53.2 | 56 | 58.8 | 1 | 47.8 | 5 | 77 | 7.8 | .103 |
| P6KE62 | 55.8 | 62 | 68.2 | 1 | 50.2 | 5 | 89 | 6.8 | .104 |
| P6KE62A | 58.9 | 62 | 65.1 | 1 | 53 | 5 | 85 | 7.1 | .104 |
| P6KE68 | 61.2 | 68 | 74.8 | 1 | 55.1 | 5 | 98 | 6.1 | .104 |
| P6KE68A | 64.6 | 68 | 71.4 | 1 | 58.1 | 5 | 92 | 6.5 | .104 |

P6KE6.8 thru P6KE540A



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| MCC PART NUMBER | BREAKDOWN VOLTAGE $V_{(BR)} @ I_T$ (VOLTS) | | | TEST CURRENT I_T mADC | RATED STANDOFF VOLTAGE V_{WM} V | MAXIMUM REVERSE LEAKAGE $I_D @ V_{WM}$ (μ A) | MAXIMUM CLAMPING VOLTAGE $V_C @ I_{PP}$ V | MAXIMUM PEAK PULSE CURRENT I_{PP} A | MAX. TEMP COEFFICIENT OF V_{BR} $V_{(BR)} (TA)$ -55°C TO 100°C % / °C |
|--------------------|---|-----|------|----------------------------------|---|---|---|--|--|
| | MIN | NOM | MAX | | | | | | |
| P6KE75 | 67.5 | 75 | 82.5 | 1 | 60.7 | 5 | 108 | 5.5 | .105 |
| P6KE75A | 71.3 | 75 | 78.8 | 1 | 64.1 | 5 | 103 | 5.8 | .105 |
| P6KE82 | 73.8 | 82 | 90.2 | 1 | 66.4 | 5 | 118 | 5.1 | .105 |
| P6KE82A | 77.9 | 82 | 86.1 | 1 | 70.1 | 5 | 113 | 5.3 | .105 |
| P6KE91 | 81.9 | 91 | 100 | 1 | 73.7 | 5 | 131 | 4.5 | .106 |
| P6KE91A | 86.5 | 91 | 95.5 | 1 | 77.8 | 5 | 125 | 4.8 | .106 |
| P6KE100 | 90 | 100 | 110 | 1 | 81 | 5 | 144 | 4.2 | .106 |
| P6KE100A | 95 | 100 | 105 | 1 | 85.5 | 5 | 137 | 4.4 | .106 |
| P6KE110 | 99 | 110 | 121 | 1 | 89.2 | 5 | 158 | 3.8 | .107 |
| P6KE110A | 105 | 110 | 116 | 1 | 94 | 5 | 152 | 4.0 | .107 |
| P6KE120 | 108 | 120 | 132 | 1 | 97.2 | 5 | 173 | 3.5 | .107 |
| P6KE120A | 114 | 120 | 126 | 1 | 102 | 5 | 165 | 3.6 | .107 |
| P6KE130 | 117 | 130 | 143 | 1 | 105 | 5 | 187 | 3.2 | .108 |
| P6KE130A | 124 | 130 | 137 | 1 | 111 | 5 | 179 | 3.3 | .108 |
| P6KE150 | 135 | 150 | 165 | 1 | 121 | 5 | 215 | 2.8 | .108 |
| P6KE150A | 143 | 150 | 158 | 1 | 128 | 5 | 207 | 2.9 | .108 |
| P6KE160 | 144 | 160 | 176 | 1 | 130 | 5 | 230 | 2.6 | .108 |
| P6KE160A | 152 | 160 | 168 | 1 | 136 | 5 | 219 | 2.7 | .108 |
| P6KE170 | 153 | 170 | 187 | 1 | 138 | 5 | 244 | 2.5 | .108 |
| P6KE170A | 161 | 170 | 179 | 1 | 145 | 5 | 234 | 2.6 | .108 |
| P6KE180 | 162 | 180 | 198 | 1 | 146 | 5 | 258 | 2.3 | .108 |
| P6KE180A | 171 | 180 | 189 | 1 | 154 | 5 | 246 | 2.4 | .108 |
| P6KE200 | 180 | 200 | 220 | 1 | 162 | 5 | 287 | 2.1 | .108 |
| P6KE200A | 190 | 200 | 210 | 1 | 171 | 5 | 274 | 2.2 | .108 |
| P6KE220 | 198 | 220 | 242 | 1 | 175 | 5 | 344 | 1.8 | .108 |
| P6KE220A | 209 | 220 | 231 | 1 | 185 | 5 | 328 | 1.9 | .108 |
| P6KE250 | 225 | 250 | 275 | 1 | 202 | 5 | 360 | 1.7 | .110 |
| P6KE250A | 237 | 250 | 263 | 1 | 214 | 5 | 344 | 1.8 | .110 |
| P6KE300 | 270 | 300 | 330 | 1 | 243 | 5 | 430 | 1.4 | .110 |
| P6KE300A | 285 | 300 | 315 | 1 | 256 | 5 | 414 | 1.5 | .110 |
| P6KE350 | 315 | 350 | 385 | 1 | 284 | 5 | 504 | 1.2 | .110 |
| P6KE350A | 332 | 350 | 368 | 1 | 300 | 5 | 482 | 1.3 | .110 |
| P6KE400 | 360 | 400 | 440 | 1 | 324 | 5 | 574 | 1.05 | .110 |
| P6KE400A | 380 | 400 | 420 | 1 | 342 | 5 | 548 | 1.1 | .110 |
| P6KE440 | 396 | 440 | 484 | 1 | 356 | 5 | 631 | 0.99 | .110 |
| P6KE440A | 418 | 440 | 462 | 1 | 376 | 5 | 600 | 1.04 | .110 |
| P6KE480 | 432 | 480 | 528 | 1 | 389 | 5 | 686 | 0.88 | .110 |
| P6KE480A | 456 | 480 | 504 | 1 | 408 | 5 | 658 | 0.91 | .110 |
| P6KE510 | 459 | 510 | 561 | 1 | 413 | 5 | 729 | 0.82 | .110 |
| P6KE510A | 485 | 510 | 535 | 1 | 434 | 5 | 698 | 0.86 | .110 |
| P6KE540 | 486 | 510 | 594 | 1 | 437 | 5 | 772 | 0.78 | .110 |
| P6KE540A | 513 | 510 | 567 | 1 | 459 | 5 | 740 | 0.81 | .110 |

Notes: For bidirectional types having V_{wm} of 10 Volts and less, the I_R limit is double.
For parts without A, the V_{BR} is +/- 10%.



TM

Micro Commercial Components

Ordering Information :

| Device | Packing |
|----------------|------------------------------|
| Part Number-TP | Tape&Reel: 4Kpcs/Reel |
| Part Number-AP | Ammo Packing: 3Kpcs/Ammo Box |
| Part Number-BP | Bulk: 25Kpcs/Carton |

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- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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