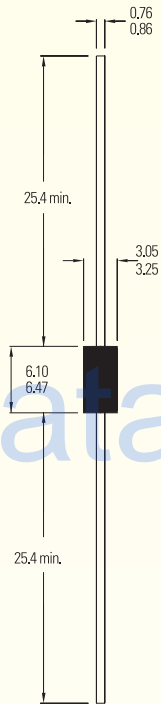


▼ P6KE6.8 – P6KE400CA
▲ Series



CRYDOM

Control over power



All dimensions in mm

Invisible Protection

When no problems exist, Crydom TVS Diodes are totally invisible to the circuits they're protecting. But when potentially damaging transients occur, they provide high-speed "clamping" to prevent damage – and then return to their electronically invisible state.

600 WATT AXIAL TRANSIENT VOLTAGE SUPPRESSORS

Protect sensitive electronics against voltage transients induced by electrostatic discharge (ESD), inductive load switching, and lightning. Ideal for the protection of I/O interfaces, Vcc bus, and other integrated circuits.

FEATURES

- Glass passivated junction
- Stand-off voltage range: 6.8-400 V
- Excellent clamping capability
- Uni-directional and bi-directional
- 100% surge tested
- UL listed

MAXIMUM RATINGS

- Peak pulse power (PPK): 600 watts (10 X 1000 μ s)
- 1.5 watt steady state
- Response time: 1 X 10⁻¹²s (theoretical)
- Forward surge rating: 100 A, 8.3 ms half sine wave (uni-directional devices only)
- Operating and storage temperature: -55°C to +175°C

MECHANICAL CHARACTERISTICS

- Case: DO15, molded plastic over glass passivated junction
- Terminals: Axial leads, solderable per MIL-STD-202 Method 208
- Marking: Cathode band (positive terminal, uni-directional devices only), device code, logo
- Weight: 1.2 grams (approx.)

Datasheet Directory

 **P6KE6.8 – P6KE400CA Series**

| PART NUMBER (UNI) | PART NUMBER (BI) | REVERSE STAND-OFF VOLTAGE Vr (V) | BREAKDOWN VOLTAGE Vbr (V) @ If | | | MAXIMUM REVERSE LEAKAGE Ir @ Vr (µA) | MAXIMUM CLAMPING VOLTAGE Vc @ IPP (V) | MAXIMUM PEAK PULSE CURRENT IPP (A) | MAX. VOLTAGE TEMPERATURE VARIATION OF VBR (%/°C) |
|-------------------|------------------|----------------------------------|--------------------------------|------|------|--------------------------------------|---------------------------------------|------------------------------------|--|
| | | | MIN. | MAX. | (mA) | | | | |
| *P6KE6.8 | *P6KE6.8C | 5.5 | 6.12 | 7.48 | 10.0 | 1000.0 | 10.8 | 56.0 | 0.057 |
| *P6KE6.8A | *P6KE6.8CA | 5.8 | 6.45 | 7.14 | 10.0 | 1000.0 | 10.5 | 57.0 | 0.057 |
| P6KE7.5 | P6KE7.5C | 6.05 | 6.75 | 8.25 | 10.0 | 500.0 | 11.7 | 51.0 | 0.061 |
| P6KE7.5A | P6KE7.5CA | 6.4 | 7.13 | 7.88 | 10.0 | 500.0 | 11.3 | 53.0 | 0.061 |
| P6KE8.2 | P6KE8.2C | 6.63 | 7.38 | 9.02 | 10.0 | 200.0 | 12.5 | 48.0 | 0.065 |
| P6KE8.2A | P6KE8.2CA | 7.02 | 7.79 | 8.61 | 10.0 | 200.0 | 12.1 | 50.0 | 0.065 |
| P6KE9.1 | P6KE9.1C | 7.37 | 8.19 | 10.0 | 1.0 | 50.0 | 13.8 | 44.0 | 0.068 |
| P6KE9.1A | P6KE9.1CA | 7.78 | 8.65 | 9.55 | 1.0 | 50.0 | 13.4 | 45.0 | 0.068 |
| P6KE10 | P6KE10C | 8.1 | 9.00 | 11.0 | 1.0 | 10.0 | 15.0 | 40.0 | 0.073 |
| P6KE10A | P6KE10CA | 8.55 | 9.5 | 10.5 | 1.0 | 10.0 | 14.5 | 41.0 | 0.073 |
| P6KE11 | P6KE11C | 8.92 | 9.9 | 12.1 | 1.0 | 5.0 | 16.2 | 37.0 | 0.075 |
| P6KE11A | P6KE11CA | 9.4 | 10.5 | 11.6 | 1.0 | 5.0 | 15.6 | 38.0 | 0.075 |
| *P6KE12 | P6KE12C | 9.72 | 10.8 | 13.2 | 1.0 | 5.0 | 17.3 | 35.0 | 0.078 |
| *P6KE12A | P6KE12CA | 10.2 | 11.4 | 12.6 | 1.0 | 5.0 | 16.7 | 36.0 | 0.078 |
| P6KE13 | P6KE13C | 10.5 | 11.7 | 14.3 | 1.0 | 5.0 | 19.0 | 32.0 | 0.081 |
| P6KE13A | P6KE13CA | 11.1 | 12.4 | 13.7 | 1.0 | 5.0 | 18.2 | 33.0 | 0.081 |
| P6KE15 | *P6KE15C | 12.1 | 13.5 | 16.5 | 1.0 | 5.0 | 22.0 | 27.0 | 0.084 |
| P6KE15A | *P6KE15CA | 12.8 | 14.3 | 15.8 | 1.0 | 5.0 | 21.2 | 28.0 | 0.084 |
| P6KE16 | P6KE16C | 12.9 | 14.4 | 17.6 | 1.0 | 5.0 | 23.5 | 26.0 | 0.086 |
| P6KE16A | P6KE16CA | 13.6 | 15.2 | 16.8 | 1.0 | 5.0 | 22.5 | 27.0 | 0.086 |
| *P6KE18 | *P6KE18C | 14.5 | 16.2 | 19.8 | 1.0 | 5.0 | 26.5 | 23.0 | 0.088 |
| *P6KE18A | *P6KE18CA | 15.3 | 17.1 | 18.9 | 1.0 | 5.0 | 25.2 | 24.0 | 0.088 |
| P6KE20 | P6KE20C | 16.2 | 18.0 | 22.0 | 1.0 | 5.0 | 29.1 | 21.0 | 0.09 |
| P6KE20A | P6KE20CA | 17.1 | 19.0 | 21.0 | 1.0 | 5.0 | 27.7 | 22.0 | 0.09 |
| P6KE22 | P6KE22C | 17.8 | 19.8 | 24.2 | 1.0 | 5.0 | 31.9 | 19.0 | 0.092 |
| P6KE22A | P6KE22CA | 18.8 | 20.9 | 23.1 | 1.0 | 5.0 | 30.6 | 20.0 | 0.092 |
| P6KE24 | P6KE24C | 19.4 | 21.6 | 26.4 | 1.0 | 5.0 | 34.7 | 17.0 | 0.094 |
| P6KE24A | P6KE24CA | 20.5 | 22.8 | 25.2 | 1.0 | 5.0 | 33.2 | 18.0 | 0.094 |
| *P6KE27 | P6KE27C | 21.8 | 24.3 | 29.7 | 1.0 | 5.0 | 39.1 | 15.0 | 0.096 |
| *P6KE27A | P6KE27CA | 23.1 | 25.7 | 28.4 | 1.0 | 5.0 | 37.5 | 16.0 | 0.096 |
| P6KE30 | P6KE30C | 24.3 | 27.0 | 33.0 | 1.0 | 5.0 | 43.5 | 14.0 | 0.097 |
| P6KE30A | P6KE30CA | 25.6 | 28.5 | 31.5 | 1.0 | 5.0 | 41.4 | 14.4 | 0.097 |
| P6KE33 | P6KE33C | 26.8 | 29.7 | 36.3 | 1.0 | 5.0 | 47.7 | 12.6 | 0.098 |
| P6KE33A | P6KE33CA | 28.2 | 31.4 | 34.7 | 1.0 | 5.0 | 45.7 | 13.2 | 0.098 |
| P6KE36 | *P6KE36C | 29.1 | 32.4 | 39.6 | 1.0 | 5.0 | 52.0 | 11.6 | 0.099 |
| P6KE36A | *P6KE36CA | 30.8 | 34.2 | 37.8 | 1.0 | 5.0 | 49.9 | 12.0 | 0.099 |
| P6KE39 | P6KE39C | 31.6 | 35.1 | 42.9 | 1.0 | 5.0 | 56.4 | 10.5 | 0.10 |
| P6KE39A | P6KE39CA | 33.3 | 37.1 | 41.0 | 1.0 | 5.0 | 53.9 | 11.2 | 0.10 |
| P6KE43 | *P6KE43C | 34.8 | 38.7 | 47.3 | 1.0 | 5.0 | 61.9 | 9.6 | 0.101 |
| P6KE43A | *P6KE43CA | 36.8 | 40.9 | 45.2 | 1.0 | 5.0 | 59.3 | 10.1 | 0.101 |
| P6KE47 | P6KE47C | 38.1 | 42.3 | 51.7 | 1.0 | 5.0 | 67.8 | 8.9 | 0.101 |
| P6KE47A | P6KE47CA | 40.2 | 44.7 | 49.4 | 1.0 | 5.0 | 64.8 | 9.3 | 0.101 |

*Preferred voltages.

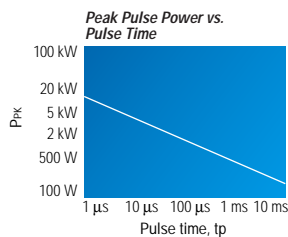
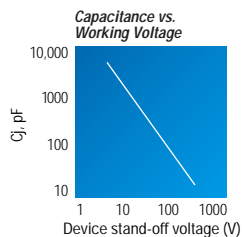
Note: Suffix "C" denotes bi-directional device. Suffix "A" denotes 5% tolerance device. No suffix denotes 10% tolerance device. For bi-directional devices having Vr of 10 V and under the Ir limit is doubled. Vf = 3.5 V max. for devices of nominal Vbr < 200 V, and Vf = 5.0 V max. for devices of nominal Vbr > 200 V. If = 50 A, 300 µs square wave. Electrical specifications @ 25°C.

P6KE6.8 – P6KE400CA Series

| PART NUMBER (UNI) | PART NUMBER (BI) | REVERSE STAND-OFF VOLTAGE Vr (V) | BREAKDOWN VOLTAGE Vbr (V) @ It | | | MAXIMUM REVERSE LEAKAGE Ir @ Vr (µA) | MAXIMUM CLAMPING VOLTAGE Vc @ IPP (V) | MAXIMUM PEAK PULSE CURRENT IPP (A) | MAX. VOLTAGE TEMPERATURE VARIATION OF VBR (%/°C) |
|-------------------|------------------|----------------------------------|--------------------------------|-------|------|--------------------------------------|---------------------------------------|------------------------------------|--|
| | | | MIN. | MAX. | (mA) | | | | |
| P6KE51 | P6KE51C | 41.3 | 45.9 | 56.1 | 1.0 | 5.0 | 73.5 | 8.2 | 0.102 |
| P6KE51A | P6KE51CA | 43.6 | 48.5 | 53.6 | 1.0 | 5.0 | 70.1 | 8.6 | 0.102 |
| P6KE56 | P6KE56C | 45.4 | 50.4 | 61.6 | 1.0 | 5.0 | 80.5 | 7.4 | 0.103 |
| P6KE56A | P6KE56CA | 47.8 | 53.2 | 58.8 | 1.0 | 5.0 | 77.0 | 7.8 | 0.103 |
| P6KE62 | P6KE62C | 50.2 | 55.8 | 68.2 | 1.0 | 5.0 | 89.0 | 6.8 | 0.104 |
| P6KE62A | P6KE62CA | 53.0 | 58.9 | 65.1 | 1.0 | 5.0 | 85.0 | 7.1 | 0.104 |
| P6KE68 | P6KE68C | 55.1 | 61.2 | 74.8 | 1.0 | 5.0 | 98.0 | 6.1 | 0.104 |
| P6KE68A | P6KE68CA | 58.1 | 64.6 | 71.4 | 1.0 | 5.0 | 92.0 | 6.5 | 0.104 |
| P6KE75 | P6KE75C | 60.7 | 67.5 | 82.5 | 1.0 | 5.0 | 108.0 | 5.5 | 0.105 |
| P6KE75A | P6KE75CA | 64.1 | 71.3 | 78.8 | 1.0 | 5.0 | 103.0 | 5.8 | 0.105 |
| P6KE82 | P6KE82C | 66.4 | 73.8 | 90.2 | 1.0 | 5.0 | 118.0 | 5.1 | 0.105 |
| P6KE82A | P6KE82CA | 70.1 | 77.9 | 86.1 | 1.0 | 5.0 | 113.0 | 5.3 | 0.105 |
| P6KE91 | P6KE91C | 73.7 | 81.9 | 100.0 | 1.0 | 5.0 | 131.0 | 4.5 | 0.106 |
| P6KE91A | P6KE91CA | 77.8 | 86.5 | 95.5 | 1.0 | 5.0 | 125.0 | 4.8 | 0.106 |
| P6KE100 | P6KE100C | 81.0 | 90.0 | 110.0 | 1.0 | 5.0 | 144.0 | 4.2 | 0.106 |
| P6KE100A | P6KE100CA | 85.5 | 95.0 | 105.0 | 1.0 | 5.0 | 137.0 | 4.4 | 0.106 |
| P6KE110 | P6KE110C | 89.2 | 99.0 | 121.0 | 1.0 | 5.0 | 158.0 | 3.8 | 0.107 |
| P6KE110A | P6KE110CA | 94.0 | 105.0 | 116.0 | 1.0 | 5.0 | 152.0 | 4.0 | 0.107 |
| P6KE120 | P6KE120C | 97.2 | 108.0 | 132.0 | 1.0 | 5.0 | 173.0 | 3.5 | 0.107 |
| P6KE120A | P6KE120CA | 102.0 | 114.0 | 126.0 | 1.0 | 5.0 | 165.0 | 3.6 | 0.107 |
| P6KE130 | P6KE130C | 105.0 | 117.0 | 143.0 | 1.0 | 5.0 | 187.0 | 3.2 | 0.107 |
| P6KE130A | P6KE130CA | 111.0 | 124.0 | 137.0 | 1.0 | 5.0 | 179.0 | 3.3 | 0.107 |
| P6KE150 | P6KE150C | 121.0 | 135.0 | 165.0 | 1.0 | 5.0 | 215.0 | 2.8 | 0.108 |
| P6KE150A | P6KE150CA | 128.0 | 143.0 | 158.0 | 1.0 | 5.0 | 207.0 | 2.9 | 0.108 |
| P6KE160 | P6KE160C | 130.0 | 144.0 | 176.0 | 1.0 | 5.0 | 230.0 | 2.6 | 0.108 |
| P6KE160A | P6KE160CA | 136.0 | 152.0 | 168.0 | 1.0 | 5.0 | 219.0 | 2.7 | 0.108 |
| P6KE170 | P6KE170C | 138.0 | 153.0 | 187.0 | 1.0 | 5.0 | 244.0 | 2.5 | 0.108 |
| P6KE170A | P6KE170CA | 145.0 | 162.0 | 179.0 | 1.0 | 5.0 | 234.0 | 2.6 | 0.108 |
| P6KE180 | P6KE180C | 146.0 | 162.0 | 198.0 | 1.0 | 5.0 | 258.0 | 2.3 | 0.108 |
| P6KE180A | P6KE180CA | 154.0 | 171.0 | 189.0 | 1.0 | 5.0 | 246.0 | 2.4 | 0.108 |
| P6KE200 | *P6KE200C | 162.0 | 180.0 | 220.0 | 1.0 | 5.0 | 287.0 | 2.1 | 0.108 |
| P6KE200A | *P6KE200CA | 171.0 | 190.0 | 210.0 | 1.0 | 5.0 | 274.0 | 2.2 | 0.108 |
| P6KE220 | P6KE220C | 175.0 | 198.0 | 242.0 | 1.0 | 5.0 | 344.0 | 1.75 | 0.108 |
| P6KE220A | P6KE220CA | 185.0 | 209.0 | 231.0 | 1.0 | 5.0 | 328.0 | 1.83 | 0.108 |
| P6KE250 | P6KE250C | 202.0 | 225.0 | 275.0 | 1.0 | 5.0 | 360.0 | 1.67 | 0.11 |
| P6KE250A | P6KE250CA | 214.0 | 237.0 | 263.0 | 1.0 | 5.0 | 344.0 | 1.75 | 0.11 |
| P6KE300 | P6KE300C | 243.0 | 270.0 | 330.0 | 1.0 | 5.0 | 430.0 | 1.4 | 0.11 |
| P6KE300A | P6KE300CA | 256.0 | 285.0 | 315.0 | 1.0 | 5.0 | 414.0 | 1.45 | 0.11 |
| P6KE350 | P6KE350C | 284.0 | 315.0 | 385.0 | 1.0 | 5.0 | 504.0 | 1.2 | 0.11 |
| P6KE350A | P6KE350CA | 300.0 | 332.0 | 368.0 | 1.0 | 5.0 | 482.0 | 1.25 | 0.11 |
| P6KE400 | P6KE400C | 324.0 | 360.0 | 440.0 | 1.0 | 5.0 | 574.0 | 1.05 | 0.11 |
| P6KE400A | P6KE400CA | 342.0 | 380.0 | 420.0 | 1.0 | 5.0 | 548.0 | 1.1 | 0.11 |



P6KE6.8 – P6KE400CA Series



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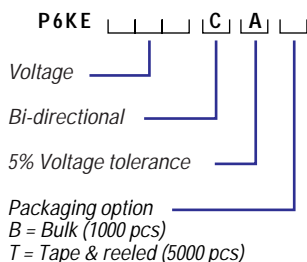
Fax: 1-619-715-7280

E-mail: sales@crydom.com

Website: www.crydom.com

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Crydom

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