

## Axial Lead Transient Voltage Suppressors (TVS)

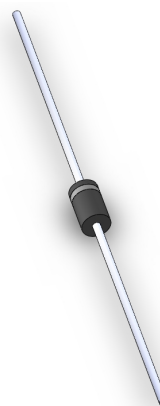
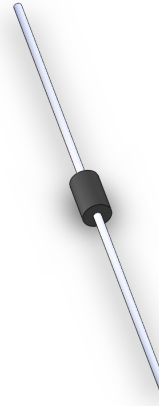
**P4KE Series 6.8 To 600 V 400W**

### Description

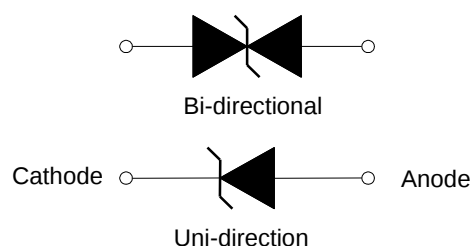
The P4KE series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

### Features

- u Glass passivated chip junction in DO-41 Package
- u Low leakage
- u Uni and Bidirectional unit
- u Excellent clamping capability
- u 400W Peak power capability at 10 × 1000μs waveform Repetition rate (duty cycle):0.01%
- u Fast response time: typically less than 1.0ps from 0 Volts to  $V_{BR}$  min
- u Typical  $I_R$  less than 5μA above 12V.
- u High Temperature soldering: 260°C/40 seconds at terminals
- u Typical maximum temperature coefficient  $\Delta V_{BR} = 0.1\% \times V_{BR}@25^\circ\text{C} \times \Delta T$
- u Plastic package has Underwriters Laboratory Flammability 94V-0
- u Matte tin lead-free Plated
- u Halogen free and RoHS compliant
- u Typical failure mode is short from over-specified voltage or current
- u Whisker test is conducted based on JEDEC JESD201A per its table 4a and 4c
- u IEC-61000-4-2 ESD 15kV(Air), 8kV (Contact)
- u ESD protection of data lines in accordance with IEC 61000-4-2 (IEC801-2)
- u EFT protection of data lines in accordance with IEC 61000-4-4 (IEC801-4)

**Uni-directional**

**Bi-directional**


### Functional Diagram



### Applications

TVS devices are ideal for the protection of I/O interfaces,  $V_{CC}$  bus and other vulnerable circuits used in Telecom, Computer, Industrial and Consumer electronic applications.

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

| Parameter                                                                        | Symbol         | Value          | Unit             |
|----------------------------------------------------------------------------------|----------------|----------------|------------------|
| Peak Pulse Power Dissipation with a 10/1000μs waveform (Fig.1)(Note 1), (Note 2) | $P_{PPM}$      | 400            | Watts            |
| Peak Pulse Current with a 10/1000μs waveform.(Note1, Fig.3)                      | $I_{PP}$       | See Next Table | Amps             |
| Power Dissipation on Infinite Heat Sink at $T_L=75^\circ\text{C}$                | $P_{M(AV)}$    | 1.0            | Watt             |
| Peak Forward Surge Current, 8.3ms Single Half Sine Wave (Note 3)                 | $I_{FSM}$      | 40             | Amps             |
| Maximum Instantaneous Forward Voltage at 25A for Unidirectional Only (Note 4)    | $V_F$          | 3.5/5.0        | Voltage          |
| Operating junction and Storage Temperature Range.                                | $T_J, T_{STG}$ | -55 to +150    | $^\circ\text{C}$ |

### Notes:

1. Non-repetitive current pulse, per Fig. 3 and derated above  $T_A = 25^\circ\text{C}$  per Fig. 2.
2. Mounted on 5.0mm x 5.0mm (0.03mm thick) Copper Pads to each terminal.
3. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.
4.  $V_F < 3.5\text{V}$  for  $V_{BR} < 200\text{V}$  and  $V_F < 6.5\text{V}$  for  $V_{BR} > 201\text{V}$ .

## Axial Lead Transient Voltage Suppressors (TVS)

**P4KE Series 6.8 To 600 V 400W**
**Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)**

| Part Number |           | Reverse Stand-Off Voltage V <sub>RWM</sub> (V) | Breakdown Voltage V <sub>BR</sub> (V) @I <sub>T</sub> |       | Test Current I <sub>T</sub> (mA) | Maximum Clamping Voltage V <sub>C</sub> @I <sub>PP</sub> (V) | Maximum Peak Pulse Current I <sub>PP</sub> (A) | Maximum Reverse Leakage I <sub>R</sub> @V <sub>RWM</sub> (μA) |
|-------------|-----------|------------------------------------------------|-------------------------------------------------------|-------|----------------------------------|--------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------|
| Uni         | Bi        |                                                | MIN                                                   | MAX   |                                  |                                                              |                                                |                                                               |
| P4KE6.8     | P4KE6.8C  | 5.5                                            | 6.12                                                  | 7.48  | 10                               | 10.8                                                         | 37.04                                          | 1000                                                          |
| P4KE6.8A    | P4KE6.8CA | 5.8                                            | 6.46                                                  | 7.14  | 10                               | 10.5                                                         | 38.10                                          | 1000                                                          |
| P4KE7.5     | P4KE7.5C  | 6.1                                            | 6.75                                                  | 8.25  | 10                               | 11.7                                                         | 34.19                                          | 500                                                           |
| P4KE7.5A    | P4KE7.5CA | 6.4                                            | 7.13                                                  | 7.88  | 10                               | 11.3                                                         | 35.40                                          | 500                                                           |
| P4KE8.2     | P4KE8.2C  | 6.6                                            | 7.38                                                  | 9.02  | 10                               | 12.5                                                         | 32.00                                          | 200                                                           |
| P4KE8.2A    | P4KE8.2CA | 7.0                                            | 7.79                                                  | 8.61  | 10                               | 12.1                                                         | 33.06                                          | 200                                                           |
| P4KE9.1     | P4KE9.1C  | 7.4                                            | 8.19                                                  | 10.01 | 1                                | 13.8                                                         | 28.99                                          | 50                                                            |
| P4KE9.1A    | P4KE9.1CA | 7.8                                            | 8.65                                                  | 9.56  | 1                                | 13.4                                                         | 29.85                                          | 50                                                            |
| P4KE10      | P4KE10C   | 8.1                                            | 9.00                                                  | 11.00 | 1                                | 15.0                                                         | 26.67                                          | 10                                                            |
| P4KE10A     | P4KE10CA  | 8.6                                            | 9.50                                                  | 10.50 | 1                                | 14.5                                                         | 27.59                                          | 10                                                            |
| P4KE11      | P4KE11C   | 8.9                                            | 9.90                                                  | 12.10 | 1                                | 16.2                                                         | 24.69                                          | 5                                                             |
| P4KE11A     | P4KE11CA  | 9.4                                            | 10.45                                                 | 11.55 | 1                                | 15.6                                                         | 25.64                                          | 5                                                             |
| P4KE12      | P4KE12C   | 9.7                                            | 10.80                                                 | 13.20 | 1                                | 17.3                                                         | 23.12                                          | 5                                                             |
| P4KE12A     | P4KE12CA  | 10.2                                           | 11.40                                                 | 12.60 | 1                                | 16.7                                                         | 23.95                                          | 5                                                             |
| P4KE13      | P4KE13C   | 10.5                                           | 11.70                                                 | 14.30 | 1                                | 19.0                                                         | 21.05                                          | 5                                                             |
| P4KE13A     | P4KE13CA  | 11.1                                           | 12.35                                                 | 13.65 | 1                                | 18.2                                                         | 21.98                                          | 5                                                             |
| P4KE15      | P4KE15C   | 12.1                                           | 13.50                                                 | 16.50 | 1                                | 22.0                                                         | 18.18                                          | 5                                                             |
| P4KE15A     | P4KE15CA  | 12.8                                           | 14.25                                                 | 15.75 | 1                                | 21.2                                                         | 18.87                                          | 5                                                             |
| P4KE16      | P4KE16C   | 12.9                                           | 14.40                                                 | 17.60 | 1                                | 23.5                                                         | 17.02                                          | 5                                                             |
| P4KE16A     | P4KE16CA  | 13.6                                           | 15.20                                                 | 16.80 | 1                                | 22.5                                                         | 17.78                                          | 5                                                             |
| P4KE18      | P4KE18C   | 14.5                                           | 16.20                                                 | 19.80 | 1                                | 26.5                                                         | 15.09                                          | 5                                                             |
| P4KE18A     | P4KE18CA  | 15.3                                           | 17.10                                                 | 18.90 | 1                                | 25.2                                                         | 15.87                                          | 5                                                             |
| P4KE20      | P4KE20C   | 16.2                                           | 18.00                                                 | 22.00 | 1                                | 29.1                                                         | 13.75                                          | 5                                                             |
| P4KE20A     | P4KE20CA  | 17.1                                           | 19.00                                                 | 21.00 | 1                                | 27.7                                                         | 14.44                                          | 5                                                             |
| P4KE22      | P4KE22C   | 17.8                                           | 19.80                                                 | 24.20 | 1                                | 31.9                                                         | 12.54                                          | 5                                                             |
| P4KE22A     | P4KE22CA  | 18.8                                           | 20.90                                                 | 23.10 | 1                                | 30.6                                                         | 13.07                                          | 5                                                             |
| P4KE24      | P4KE24C   | 19.4                                           | 21.60                                                 | 26.40 | 1                                | 34.7                                                         | 11.53                                          | 5                                                             |
| P4KE24A     | P4KE24CA  | 20.5                                           | 22.80                                                 | 25.20 | 1                                | 33.2                                                         | 12.05                                          | 5                                                             |
| P4KE27      | P4KE27C   | 21.8                                           | 24.30                                                 | 29.70 | 1                                | 39.1                                                         | 10.23                                          | 5                                                             |
| P4KE27A     | P4KE27CA  | 23.1                                           | 25.65                                                 | 28.35 | 1                                | 37.5                                                         | 10.67                                          | 5                                                             |
| P4KE30      | P4KE30C   | 24.3                                           | 27.00                                                 | 33.00 | 1                                | 43.5                                                         | 9.20                                           | 5                                                             |
| P4KE30A     | P4KE30CA  | 25.6                                           | 28.50                                                 | 31.50 | 1                                | 41.4                                                         | 9.66                                           | 5                                                             |
| P4KE33      | P4KE33C   | 26.8                                           | 29.70                                                 | 36.30 | 1                                | 47.7                                                         | 8.39                                           | 5                                                             |
| P4KE33A     | P4KE33CA  | 28.2                                           | 31.35                                                 | 34.65 | 1                                | 45.7                                                         | 8.75                                           | 5                                                             |
| P4KE36      | P4KE36C   | 29.1                                           | 32.40                                                 | 39.60 | 1                                | 52.0                                                         | 7.69                                           | 5                                                             |
| P4KE36A     | P4KE36CA  | 30.8                                           | 34.20                                                 | 37.80 | 1                                | 49.9                                                         | 8.02                                           | 5                                                             |
| P4KE39      | P4KE39C   | 31.6                                           | 35.10                                                 | 42.90 | 1                                | 56.4                                                         | 7.09                                           | 5                                                             |
| P4KE39A     | P4KE39CA  | 33.3                                           | 37.05                                                 | 40.95 | 1                                | 53.9                                                         | 7.42                                           | 5                                                             |
| P4KE43      | P4KE43C   | 34.8                                           | 38.70                                                 | 47.30 | 1                                | 61.9                                                         | 6.46                                           | 5                                                             |
| P4KE43A     | P4KE43CA  | 36.8                                           | 40.85                                                 | 45.15 | 1                                | 59.3                                                         | 6.75                                           | 5                                                             |
| P4KE47      | P4KE47C   | 38.1                                           | 42.30                                                 | 51.70 | 1                                | 67.8                                                         | 5.90                                           | 5                                                             |
| P4KE47A     | P4KE47CA  | 40.2                                           | 44.65                                                 | 49.35 | 1                                | 64.8                                                         | 6.17                                           | 5                                                             |
| P4KE51      | P4KE51C   | 41.3                                           | 45.90                                                 | 56.10 | 1                                | 73.5                                                         | 5.44                                           | 5                                                             |
| P4KE51A     | P4KE51CA  | 43.6                                           | 48.45                                                 | 53.55 | 1                                | 70.1                                                         | 5.71                                           | 5                                                             |
| P4KE56      | P4KE56C   | 45.4                                           | 50.40                                                 | 61.60 | 1                                | 80.5                                                         | 4.97                                           | 5                                                             |
| P4KE56A     | P4KE56CA  | 47.8                                           | 53.20                                                 | 58.80 | 1                                | 77.0                                                         | 5.19                                           | 5                                                             |
| P4KE62      | P4KE62C   | 50.2                                           | 55.80                                                 | 68.20 | 1                                | 89.0                                                         | 4.49                                           | 5                                                             |
| P4KE62A     | P4KE62CA  | 53.0                                           | 58.90                                                 | 65.10 | 1                                | 85.0                                                         | 4.71                                           | 5                                                             |
| P4KE68      | P4KE68C   | 55.1                                           | 61.20                                                 | 74.80 | 1                                | 98.0                                                         | 4.08                                           | 5                                                             |
| P4KE68A     | P4KE68CA  | 58.1                                           | 64.60                                                 | 71.40 | 1                                | 92.0                                                         | 4.35                                           | 5                                                             |
| P4KE75      | P4KE75C   | 60.7                                           | 67.50                                                 | 82.50 | 1                                | 108.0                                                        | 3.70                                           | 5                                                             |
| P4KE75A     | P4KE75CA  | 64.1                                           | 71.25                                                 | 78.75 | 1                                | 103.0                                                        | 3.88                                           | 5                                                             |
| P4KE82      | P4KE82C   | 66.4                                           | 73.80                                                 | 90.20 | 1                                | 118.0                                                        | 3.39                                           | 5                                                             |
| P4KE82A     | P4KE82CA  | 70.1                                           | 77.90                                                 | 86.10 | 1                                | 113.0                                                        | 3.54                                           | 5                                                             |

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**P4KE Series 6.8 To 600 V 400W**
**Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted) (Continue)**

| Part Number |           | Reverse Stand-Off Voltage V <sub>RWM</sub> (V) | Breakdown Voltage V <sub>BR</sub> (V) @I <sub>T</sub> |        | Test Current I <sub>T</sub> (mA) | Maximum Clamping Voltage V <sub>C</sub> @I <sub>PP</sub> (V) | Maximum Peak Pulse Current I <sub>PP</sub> (A) | Maximum Reverse Leakage I <sub>R</sub> @V <sub>RWM</sub> (μA) |
|-------------|-----------|------------------------------------------------|-------------------------------------------------------|--------|----------------------------------|--------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------|
| Uni         | Bi        |                                                | MIN                                                   | MAX    |                                  |                                                              |                                                |                                                               |
| P4KE91      | P4KE91C   | 73.7                                           | 81.90                                                 | 100.10 | 1                                | 131.0                                                        | 3.05                                           | 5                                                             |
| P4KE91A     | P4KE91CA  | 77.8                                           | 86.45                                                 | 95.55  | 1                                | 125.0                                                        | 3.20                                           | 5                                                             |
| P4KE100     | P4KE100C  | 81.0                                           | 90.00                                                 | 110.00 | 1                                | 144.0                                                        | 2.78                                           | 5                                                             |
| P4KE100A    | P4KE100CA | 85.5                                           | 95.00                                                 | 105.00 | 1                                | 137.0                                                        | 2.92                                           | 5                                                             |
| P4KE110     | P4KE110C  | 89.2                                           | 99.00                                                 | 121.00 | 1                                | 158.0                                                        | 2.53                                           | 5                                                             |
| P4KE110A    | P4KE110CA | 94.0                                           | 104.50                                                | 115.50 | 1                                | 152.0                                                        | 2.63                                           | 5                                                             |
| P4KE120     | P4KE120C  | 97.2                                           | 108.00                                                | 132.00 | 1                                | 173.0                                                        | 2.31                                           | 5                                                             |
| P4KE120A    | P4KE120CA | 102.0                                          | 114.00                                                | 126.00 | 1                                | 165.0                                                        | 2.42                                           | 5                                                             |
| P4KE130     | P4KE130C  | 105.0                                          | 117.00                                                | 143.00 | 1                                | 187.0                                                        | 2.14                                           | 5                                                             |
| P4KE130A    | P4KE130CA | 111.0                                          | 123.50                                                | 136.50 | 1                                | 179.0                                                        | 2.23                                           | 5                                                             |
| P4KE150     | P4KE150C  | 121.0                                          | 135.00                                                | 165.00 | 1                                | 215.0                                                        | 1.86                                           | 5                                                             |
| P4KE150A    | P4KE150CA | 128.0                                          | 142.50                                                | 157.50 | 1                                | 207.0                                                        | 1.93                                           | 5                                                             |
| P4KE160     | P4KE160C  | 130.0                                          | 144.00                                                | 176.00 | 1                                | 230.0                                                        | 1.74                                           | 5                                                             |
| P4KE160A    | P4KE160CA | 136.0                                          | 152.00                                                | 168.00 | 1                                | 219.0                                                        | 1.83                                           | 5                                                             |
| P4KE170     | P4KE170C  | 138.0                                          | 153.00                                                | 187.00 | 1                                | 244.0                                                        | 1.64                                           | 5                                                             |
| P4KE170A    | P4KE170CA | 145.0                                          | 161.50                                                | 178.50 | 1                                | 234.0                                                        | 1.71                                           | 5                                                             |
| P4KE180     | P4KE180C  | 146.0                                          | 162.00                                                | 198.00 | 1                                | 258.0                                                        | 1.55                                           | 5                                                             |
| P4KE180A    | P4KE180CA | 154.0                                          | 171.00                                                | 189.00 | 1                                | 246.0                                                        | 1.63                                           | 5                                                             |
| P4KE200     | P4KE200C  | 162.0                                          | 180.00                                                | 220.00 | 1                                | 287.0                                                        | 1.39                                           | 5                                                             |
| P4KE200A    | P4KE200CA | 171.0                                          | 190.00                                                | 210.00 | 1                                | 274.0                                                        | 1.46                                           | 5                                                             |
| P4KE220     | P4KE220C  | 175.0                                          | 198.00                                                | 242.00 | 1                                | 344.0                                                        | 1.16                                           | 5                                                             |
| P4KE220A    | P4KE220CA | 185.0                                          | 209.00                                                | 231.00 | 1                                | 328.0                                                        | 1.22                                           | 5                                                             |
| P4KE250     | P4KE250C  | 202.0                                          | 225.00                                                | 275.00 | 1                                | 360.0                                                        | 1.11                                           | 5                                                             |
| P4KE250A    | P4KE250CA | 214.0                                          | 237.50                                                | 262.50 | 1                                | 344.0                                                        | 1.16                                           | 5                                                             |
| P4KE300     | P4KE300C  | 243.0                                          | 270.00                                                | 330.00 | 1                                | 430.0                                                        | 0.93                                           | 5                                                             |
| P4KE300A    | P4KE300CA | 256.0                                          | 285.00                                                | 315.00 | 1                                | 414.0                                                        | 0.97                                           | 5                                                             |
| P4KE350     | P4KE350C  | 284.0                                          | 315.00                                                | 385.00 | 1                                | 504.0                                                        | 0.79                                           | 5                                                             |
| P4KE350A    | P4KE350CA | 299.3                                          | 332.50                                                | 367.50 | 1                                | 482.0                                                        | 0.83                                           | 5                                                             |
| P4KE380     | P4KE380C  | 308.6                                          | 342.00                                                | 418.00 | 1                                | 547.2                                                        | 0.73                                           | 5                                                             |
| P4KE380A    | P4KE380CA | 324.9                                          | 361.00                                                | 399.00 | 1                                | 524.4                                                        | 0.76                                           | 5                                                             |
| P4KE400     | P4KE400C  | 324.8                                          | 360.00                                                | 440.00 | 1                                | 576.0                                                        | 0.69                                           | 5                                                             |
| P4KE400A    | P4KE400CA | 342.0                                          | 380.00                                                | 420.00 | 1                                | 552.0                                                        | 0.72                                           | 5                                                             |
| P4KE440     | P4KE440C  | 357.3                                          | 396.00                                                | 484.00 | 1                                | 633.6                                                        | 0.63                                           | 5                                                             |
| P4KE440A    | P4KE440CA | 376.2                                          | 418.00                                                | 462.00 | 1                                | 607.2                                                        | 0.66                                           | 5                                                             |
| P4KE500     | P4KE500C  | 406.0                                          | 450.00                                                | 550.00 | 1                                | 720.0                                                        | 0.56                                           | 5                                                             |
| P4KE500A    | P4KE500CA | 427.5                                          | 475.00                                                | 525.00 | 1                                | 690.0                                                        | 0.58                                           | 5                                                             |
| P4KE520     | P4KE520C  | 422.2                                          | 468.00                                                | 572.00 | 1                                | 748.8                                                        | 0.53                                           | 5                                                             |
| P4KE520A    | P4KE520CA | 444.6                                          | 494.00                                                | 546.00 | 1                                | 717.6                                                        | 0.56                                           | 5                                                             |
| P4KE550     | P4KE550C  | 446.6                                          | 495.00                                                | 605.00 | 1                                | 792.0                                                        | 0.51                                           | 5                                                             |
| P4KE550A    | P4KE550CA | 470.3                                          | 522.50                                                | 577.50 | 1                                | 759.0                                                        | 0.53                                           | 5                                                             |
| P4KE600     | P4KE600C  | 487.2                                          | 540.00                                                | 660.00 | 1                                | 864.0                                                        | 0.46                                           | 5                                                             |
| P4KE600A    | P4KE600CA | 513.0                                          | 570.00                                                | 630.00 | 1                                | 828.0                                                        | 0.48                                           | 5                                                             |

**Note:**

1. Suffix 'A' denotes 5% tolerance device. Without 'A' denotes 10% tolerance device
2. Add suffix 'C' or 'CA' after part number to specify Bi-directional devices
3. For Bi-Directional devices having V<sub>R</sub> of 10 volts and under, the I<sub>R</sub> limit is double



## Axial Lead Transient Voltage Suppressors (TVS)

P4KE Series 6.8 To 600 V 400W

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

Figure 1 - Peak Pulse Power Rating Curve

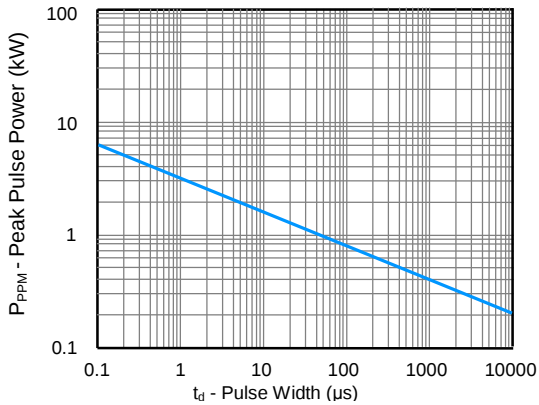


Figure 2 - Pulse Derating Curve

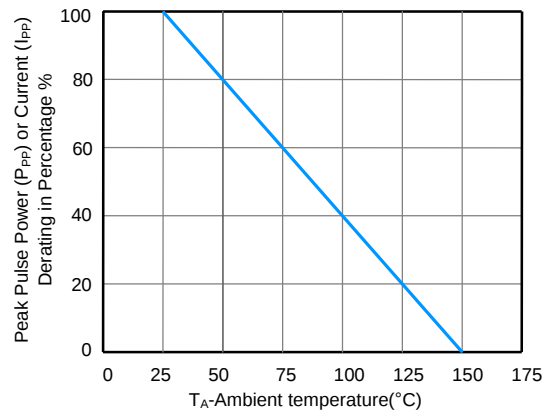


Figure 3 - Pulse Waveform

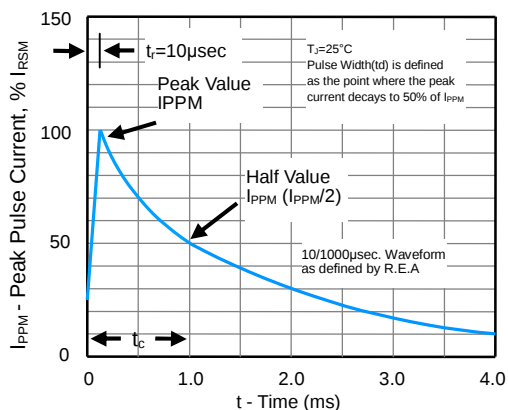


Figure 4 - Typical Junction Capacitance

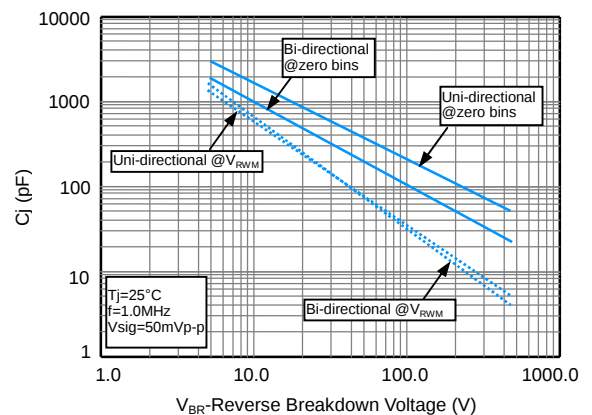


Figure 5 - Steady State Power Derating Curve

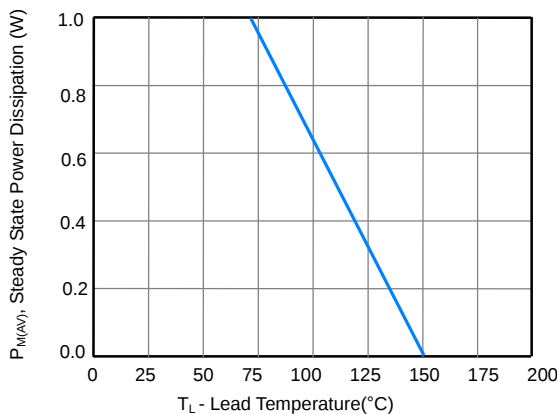
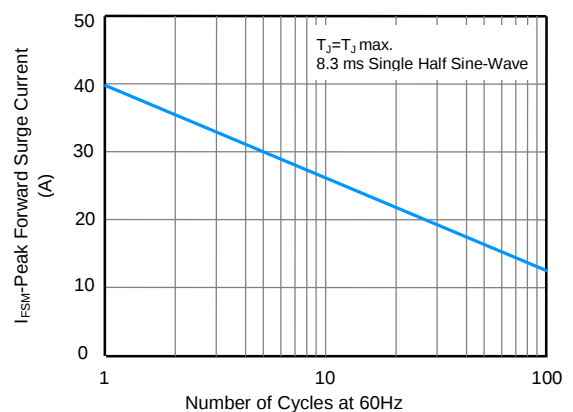


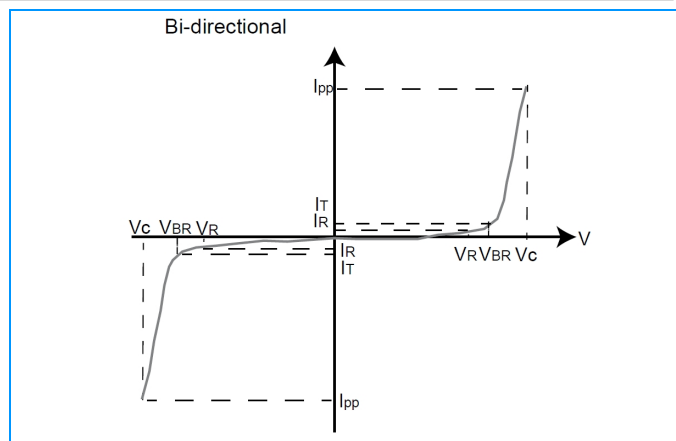
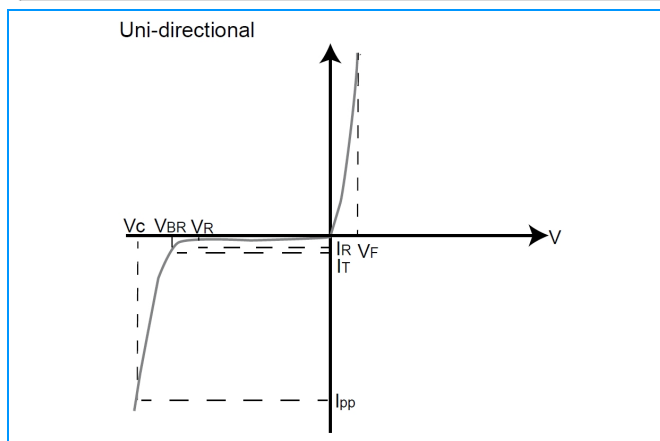
Figure 6 - Maximum Non-Repetitive Surge Current



## Axial Lead Transient Voltage Suppressors (TVS)

**P4KE Series 6.8 To 600 V 400W**

### I-V Curve Characteristics



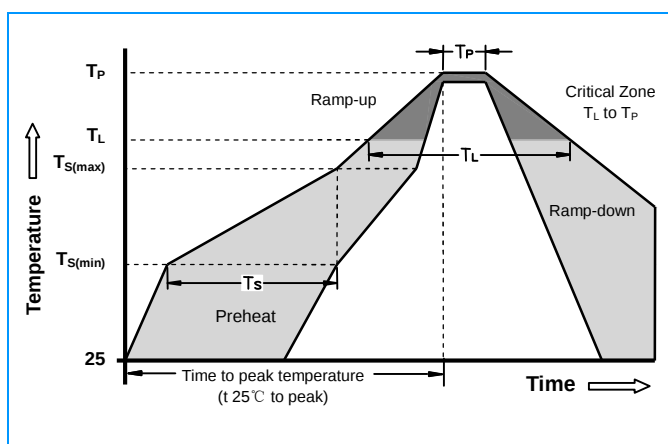
### Physical Specifications

|                 |                                                                      |
|-----------------|----------------------------------------------------------------------|
| <b>Weight</b>   | 0.012 ounce, 0.3 gram                                                |
| <b>Case</b>     | JEDEC DO-204AL (DO-41) Molded Plastic over glass passivated junction |
| <b>Polarity</b> | Color band denotes cathode except Bipolar                            |
| <b>Terminal</b> | Matte Tin-plated leads, Solderable per JESD22-B102D                  |

### Environmental Specifications

|                           |             |
|---------------------------|-------------|
| <b>Temperature Cycle</b>  | JESD22-A104 |
| <b>Pressure Cooker</b>    | JESD22-A102 |
| <b>High Temp. Storage</b> | JESD22-A103 |
| <b>HTRB</b>               | JESD22-A108 |
| <b>Thermal Shock</b>      | JESD22-A106 |

### Soldering Parameters

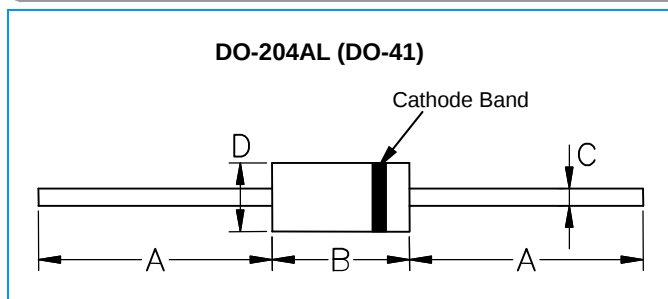


| Reflow Condition                                     |                                    | Lead-free assembly |
|------------------------------------------------------|------------------------------------|--------------------|
| Pre Heat                                             | -Temperature Min ( $T_{s(min)}$ )  | 150°C              |
|                                                      | -Temperature Max ( $T_{s(max)}$ )  | 200°C              |
|                                                      | - Time (min to max) ( $t_s$ )      | 60 -180 Seconds    |
| Average ramp up rate ( Liquidus Temp $T_L$ to peak   |                                    | 3°C/second max     |
| $T_{s(max)}$ to $T_L$ - Ramp-up Rate                 |                                    | 3°C/second max     |
| Reflow                                               | - Temperature ( $T_L$ ) (Liquidus) | 217°C              |
|                                                      | - Time (min to max) ( $t_s$ )      | 60 -150 Seconds    |
| Peak Temperature ( $T_P$ )                           |                                    | 260 +0/-5°C        |
| Time within 5°C of actual peak Temperature ( $t_p$ ) |                                    | 20 -40 Seconds     |
| Ramp-down Rate                                       |                                    | 6°C/second max     |
| Time 25°C to peak Temperature ( $T_P$ )              |                                    | 8 minutes Max      |
| Do not exceed                                        |                                    | 280°C              |

## Axial Lead Transient Voltage Suppressors (TVS)

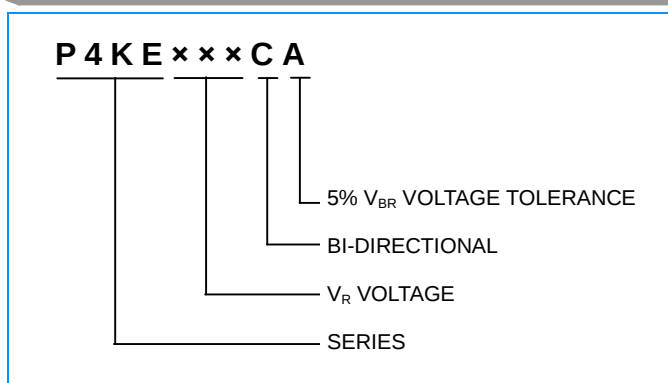
**P4KE Series 6.8 To 600 V 400W**

### Dimensions



| Dimensions | Inches |       | Millimeters |      |
|------------|--------|-------|-------------|------|
|            | Min    | Max   | Min         | Max  |
| A          | 1.000  | -     | 25.40       | -    |
| B          | 0.165  | 0.205 | 4.19        | 5.21 |
| C          | 0.028  | 0.033 | 0.71        | 0.84 |
| D          | 0.090  | 0.117 | 2.29        | 2.97 |

### Part Numbering



### Packaging

| Part Number | Component Package | Quantity | Packaging Option |
|-------------|-------------------|----------|------------------|
| P4KEXXXXX   | DO-204AL (DO-41)  | 2000     | Box              |

### Packaging Dimensions Unit: Inches (Millimeters)

