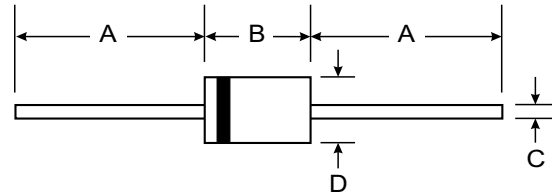


### Features

- UL Recognized
- 400W Peak Pulse Power Dissipation
- Voltage Range 6.8V - 400V
- Constructed with Glass Passivated Die
- Uni and Bidirectional Versions Available
- Excellent Clamping Capability
- Fast Response Time



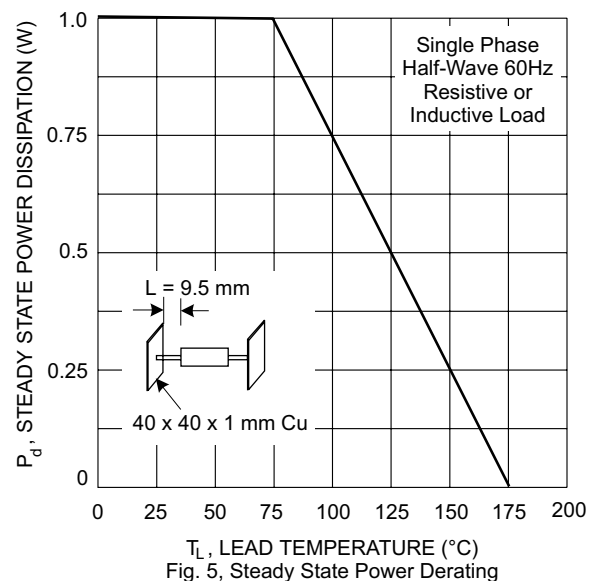
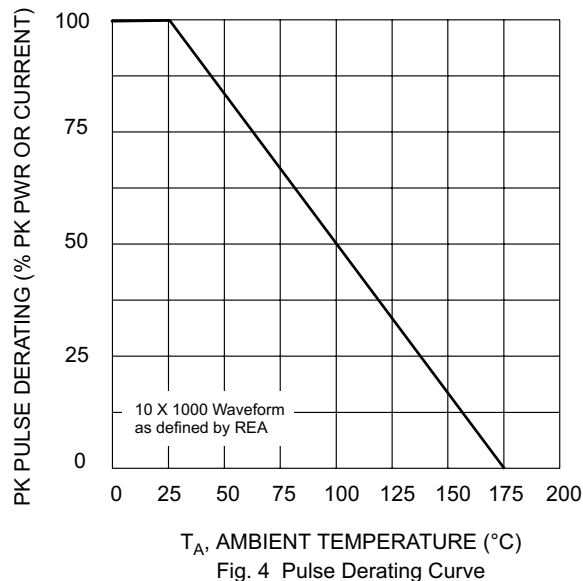
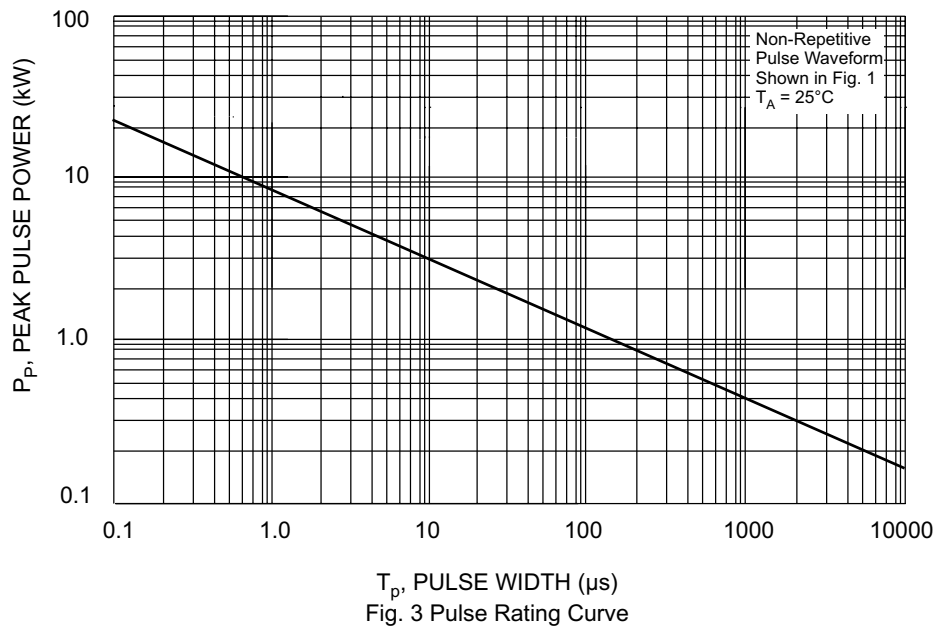
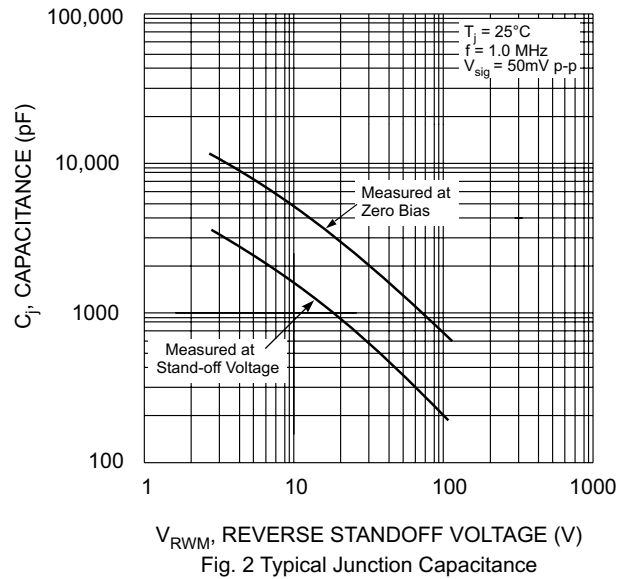
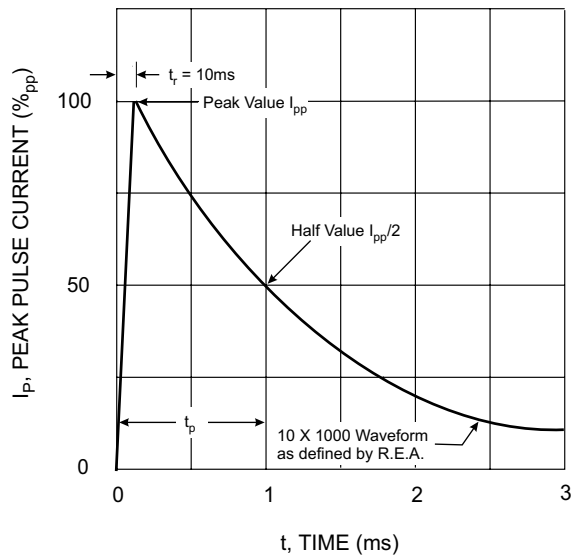
### Mechanical Data

- Case: Transfer Molded Epoxy
- Leads: Plated Leads, Solderable per MIL-STD-202, Method 208
- Marking: Unidirectional - Type Number and Cathode Band
- Marking: Bidirectional - Type Number Only
- Approx. Weight: 0.4 grams
- Mounting Position: Any

| DO-41                |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 25.40 | —     |
| B                    | 4.06  | 5.21  |
| C                    | 0.71  | 0.884 |
| D                    | 2.00  | 2.72  |
| All Dimensions in mm |       |       |

### Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic                                                                                                                                   | Symbol         | Value                                                             | Unit             |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------|------------------|
| Peak Power Dissipation, $T_p = 1.0$ ms (Non repetitive current pulse, per Figure 1 and derated above $T_A = 25^\circ\text{C}$ per Figure 4)      | $P_{pk}$       | 400                                                               | W                |
| Steady State Power Dissipation at $T_L = 75^\circ\text{C}$<br>Lead Lengths 9.5 mm per Figure 5 (Mounted on Copper Land Area of $40\text{mm}^2$ ) | $P_d$          | 1.0                                                               | W                |
| Peak Forward Surge Current, 8.3 ms Single Half Sine Wave, Superimposed on Rated Load (JEDEC Method) Duty Cycle = 4 pulses per minute maximum)    | $I_{FSM}$      | 40                                                                | A                |
| Forward Voltage @ $I_F = 20\text{A}$<br>300 $\mu\text{s}$ Square Wave Pulse, Unidirectional Only                                                 | $V_F$          | $V_{BR} \leq 200\text{V}$<br>3.5<br>$V_{BR} > 200\text{V}$<br>6.5 | V                |
| Operating and Storage Temperature Range                                                                                                          | $T_j, T_{STG}$ | -55 to +175                                                       | $^\circ\text{C}$ |



- Notes:
1. Suffix 'C' denotes bidirectional device. Suffix 'A' denotes 5% tolerance device, no suffix denotes 10% tolerance device.
  2. For bidirectional devices having  $V_R$  of 10 volts and under, the  $I_R$  limit is doubled.
  3. Type Number marking may contain a "V" or dash in place of decimal point.

| Type Number | Type Number | Reverse Standoff Voltage | Breakdown Voltage $V_{BR}$ @ $I_T$ |         | Test Current | Max Reverse Leakage @ $V_R$ | Max Clamping Voltage @ $I_{PP}$ | Max Peak Pulse Current |
|-------------|-------------|--------------------------|------------------------------------|---------|--------------|-----------------------------|---------------------------------|------------------------|
| (UNI)       | (BI)        | $V_{RWM}$ (V)            | Min (V)                            | Max (V) | $I_T$ (mA)   | $I_R$ ( $\mu$ A)            | $V_C$ (V)                       | $I_{PP}$ (A)           |
| P4KE6.8     | P4KE6.8C    | 5.50                     | 6.12                               | 7.48    | 10           | 1000                        | 10.8                            | 38.0                   |
| P4KE6.8A    | P4KE6.8CA   | 5.80                     | 6.45                               | 7.14    | 10           | 1000                        | 10.5                            | 40.0                   |
| P4KE7.5     | P4KE7.5C    | 6.05                     | 6.75                               | 8.25    | 10           | 500                         | 11.7                            | 36.0                   |
| P4KE7.5A    | P4KE7.5CA   | 6.40                     | 7.13                               | 7.88    | 10           | 500                         | 11.3                            | 37.0                   |
| P4KE8.2     | P4KE8.2C    | 6.63                     | 7.38                               | 9.02    | 10           | 200                         | 12.5                            | 33.0                   |
| P4KE8.2A    | P4KE8.2CA   | 7.02                     | 7.79                               | 8.61    | 10           | 200                         | 12.1                            | 35.0                   |
| P4KE9.1     | P4KE9.1C    | 7.37                     | 8.19                               | 10.00   | 1.0          | 50                          | 13.8                            | 30.0                   |
| P4KE9.1A    | P4KE9.1CA   | 7.78                     | 8.65                               | 9.50    | 1.0          | 50                          | 13.4                            | 31.0                   |
| P4KE10      | P4KE10C     | 8.10                     | 9.00                               | 11.00   | 1.0          | 10                          | 15.0                            | 28.0                   |
| P4KE10A     | P4KE10CA    | 8.55                     | 9.50                               | 10.50   | 1.0          | 10                          | 14.5                            | 29.0                   |
| P4KE11      | P4KE11C     | 8.92                     | 9.90                               | 12.10   | 1.0          | 5.0                         | 16.2                            | 26.0                   |
| P4KE11A     | P4KE11CA    | 9.40                     | 10.50                              | 11.60   | 1.0          | 5.0                         | 15.6                            | 27.0                   |
| P4KE12      | P4KE12C     | 9.72                     | 10.80                              | 13.20   | 1.0          | 5.0                         | 17.3                            | 24.0                   |
| P4KE12A     | P4KE12CA    | 10.20                    | 11.40                              | 12.60   | 1.0          | 5.0                         | 16.7                            | 25.0                   |
| P4KE13      | P4KE13C     | 10.50                    | 11.70                              | 14.30   | 1.0          | 5.0                         | 19.0                            | 22.0                   |
| P4KE13A     | P4KE13CA    | 11.10                    | 12.40                              | 13.70   | 1.0          | 5.0                         | 18.2                            | 23.0                   |
| P4KE15      | P4KE15C     | 12.10                    | 13.50                              | 16.50   | 1.0          | 5.0                         | 22.0                            | 19.0                   |
| P4KE15A     | P4KE15CA    | 12.80                    | 14.30                              | 15.80   | 1.0          | 5.0                         | 21.2                            | 20.0                   |
| P4KE16      | P4KE16C     | 12.90                    | 14.40                              | 17.60   | 1.0          | 5.0                         | 23.5                            | 18.0                   |
| P4KE16A     | P4KE16CA    | 13.60                    | 15.20                              | 16.80   | 1.0          | 5.0                         | 22.5                            | 19.0                   |
| P4KE18      | P4KE18C     | 14.50                    | 16.20                              | 19.80   | 1.0          | 5.0                         | 26.5                            | 16.0                   |
| P4KE18A     | P4KE18CA    | 15.30                    | 17.10                              | 18.90   | 1.0          | 5.0                         | 25.2                            | 17.0                   |
| P4KE20      | P4KE20C     | 16.20                    | 18.00                              | 22.00   | 1.0          | 5.0                         | 29.1                            | 14.0                   |
| P4KE20A     | P4KE20CA    | 17.10                    | 19.00                              | 21.00   | 1.0          | 5.0                         | 27.7                            | 15.0                   |
| P4KE22      | P4KE22C     | 17.80                    | 19.80                              | 24.20   | 1.0          | 5.0                         | 31.9                            | 13.0                   |
| P4KE22A     | P4KE22CA    | 18.80                    | 20.90                              | 23.10   | 1.0          | 5.0                         | 30.6                            | 14.0                   |
| P4KE24      | P4KE24C     | 19.40                    | 21.60                              | 26.40   | 1.0          | 5.0                         | 34.7                            | 12.0                   |
| P4KE24A     | P4KE24CA    | 20.50                    | 22.80                              | 25.20   | 1.0          | 5.0                         | 33.2                            | 13.0                   |
| P4KE27      | P4KE27C     | 21.80                    | 24.30                              | 29.70   | 1.0          | 5.0                         | 39.1                            | 11.0                   |
| P4KE27A     | P4KE27CA    | 23.10                    | 25.70                              | 28.40   | 1.0          | 5.0                         | 37.5                            | 11.2                   |
| P4KE30      | P4KE30C     | 24.30                    | 27.00                              | 33.00   | 1.0          | 5.0                         | 43.5                            | 10.0                   |
| P4KE30A     | P4KE30CA    | 25.60                    | 28.50                              | 31.50   | 1.0          | 5.0                         | 41.4                            | 10.0                   |
| P4KE33      | P4KE33C     | 26.80                    | 29.70                              | 36.30   | 1.0          | 5.0                         | 47.7                            | 9.0                    |
| P4KE33A     | P4KE33CA    | 28.20                    | 31.40                              | 34.70   | 1.0          | 5.0                         | 45.7                            | 9.0                    |
| P4KE36      | P4KE36C     | 29.10                    | 32.40                              | 39.60   | 1.0          | 5.0                         | 52.0                            | 8.0                    |
| P4KE36A     | P4KE36CA    | 30.80                    | 34.20                              | 37.80   | 1.0          | 5.0                         | 49.9                            | 8.4                    |
| P4KE39      | P4KE39C     | 31.60                    | 35.10                              | 42.90   | 1.0          | 5.0                         | 56.4                            | 7.4                    |
| P4KE39A     | P4KE39CA    | 33.30                    | 37.10                              | 41.00   | 1.0          | 5.0                         | 53.9                            | 7.8                    |
| P4KE43      | P4KE43C     | 34.80                    | 38.70                              | 47.30   | 1.0          | 5.0                         | 61.9                            | 6.8                    |
| P4KE43A     | P4KE43CA    | 36.80                    | 40.90                              | 45.20   | 1.0          | 5.0                         | 59.3                            | 7.1                    |

| Type Number | Type Number | Reverse Standoff Voltage | Breakdown Voltage $V_{BR}$ @ $I_T$ |         | Test Current | Max Reverse Leakage @ $V_R$ | Max Clamping Voltage @ $I_{PP}$ | Max Peak Pulse Current |
|-------------|-------------|--------------------------|------------------------------------|---------|--------------|-----------------------------|---------------------------------|------------------------|
| (UNI)       | (BI)        | $V_{RWM}$ (V)            | Min (V)                            | Max (V) | $I_T$ (mA)   | $I_R$ ( $\mu$ A)            | $V_C$ (V)                       | $I_{PP}$ (A)           |
| P4KE47      | P4KE47C     | 38.10                    | 42.30                              | 51.70   | 1.0          | 5.0                         | 67.8                            | 6.2                    |
| P4KE47A     | P4KE47CA    | 40.20                    | 44.70                              | 49.40   | 1.0          | 5.0                         | 64.8                            | 5.0                    |
| P4KE51      | P4KE51C     | 41.30                    | 45.90                              | 56.10   | 1.0          | 5.0                         | 73.5                            | 5.7                    |
| P4KE51A     | P4KE51CA    | 43.60                    | 48.50                              | 53.60   | 1.0          | 5.0                         | 70.1                            | 6.0                    |
| P4KE56      | P4KE56C     | 45.60                    | 50.40                              | 61.60   | 1.0          | 5.0                         | 80.5                            | 5.2                    |
| P4KE56A     | P4KE56CA    | 47.80                    | 53.20                              | 58.80   | 1.0          | 5.0                         | 77.0                            | 5.5                    |
| P4KE62      | P4KE62C     | 50.20                    | 55.80                              | 68.20   | 1.0          | 5.0                         | 89.0                            | 4.7                    |
| P4KE62A     | P4KE62CA    | 53.00                    | 58.90                              | 65.10   | 1.0          | 5.0                         | 85.0                            | 5.0                    |
| P4KE68      | P4KE68C     | 55.10                    | 61.20                              | 74.80   | 1.0          | 5.0                         | 98.0                            | 4.3                    |
| P4KE68A     | P4KE68CA    | 58.10                    | 64.60                              | 71.40   | 1.0          | 5.0                         | 92.0                            | 4.6                    |
| P4KE75      | P4KE75C     | 60.70                    | 67.50                              | 82.50   | 1.0          | 5.0                         | 108.0                           | 3.9                    |
| P4KE75A     | P4KE75CA    | 64.10                    | 71.30                              | 78.80   | 1.0          | 5.0                         | 103.0                           | 4.1                    |
| P4KE82      | P4KE82C     | 66.40                    | 73.80                              | 90.20   | 1.0          | 5.0                         | 118.0                           | 3.6                    |
| P4KE82A     | P4KE82CA    | 70.10                    | 77.90                              | 86.10   | 1.0          | 5.0                         | 113.0                           | 3.7                    |
| P4KE91      | P4KE91C     | 73.70                    | 81.90                              | 100.00  | 1.0          | 5.0                         | 131.0                           | 3.2                    |
| P4KE91A     | P4KE91CA    | 77.80                    | 86.50                              | 95.50   | 1.0          | 5.0                         | 125.0                           | 3.4                    |
| P4KE100     | P4KE100C    | 81.00                    | 90.00                              | 110.00  | 1.0          | 5.0                         | 144.0                           | 2.9                    |
| P4KE100A    | P4KE100CA   | 85.50                    | 95.00                              | 105.00  | 1.0          | 5.0                         | 137.0                           | 3.1                    |
| P4KE110     | P4KE110C    | 89.20                    | 99.00                              | 121.00  | 1.0          | 5.0                         | 158.0                           | 2.7                    |
| P4KE110A    | P4KE110CA   | 94.00                    | 105.00                             | 116.00  | 1.0          | 5.0                         | 152.0                           | 2.8                    |
| P4KE120     | P4KE120C    | 97.20                    | 108.00                             | 132.00  | 1.0          | 5.0                         | 173.0                           | 2.4                    |
| P4KE120A    | P4KE120CA   | 102.00                   | 114.00                             | 126.00  | 1.0          | 5.0                         | 165.0                           | 2.5                    |
| P4KE130     | P4KE130C    | 105.00                   | 117.00                             | 143.00  | 1.0          | 5.0                         | 187.0                           | 2.2                    |
| P4KE130A    | P4KE130CA   | 111.00                   | 124.00                             | 137.00  | 1.0          | 5.0                         | 179.0                           | 2.3                    |
| P4KE150     | P4KE150C    | 121.00                   | 135.00                             | 165.00  | 1.0          | 5.0                         | 215.0                           | 2.0                    |
| P4KE150A    | P4KE150CA   | 128.00                   | 143.00                             | 158.00  | 1.0          | 5.0                         | 207.0                           | 2.0                    |
| P4KE160     | P4KE160C    | 130.00                   | 144.00                             | 176.00  | 1.0          | 5.0                         | 230.0                           | 1.8                    |
| P4KE160A    | P4KE160CA   | 136.00                   | 152.00                             | 168.00  | 1.0          | 5.0                         | 219.0                           | 1.9                    |
| P4KE170     | P4KE170C    | 138.00                   | 153.00                             | 187.00  | 1.0          | 5.0                         | 244.0                           | 1.7                    |
| P4KE170A    | P4KE170CA   | 145.00                   | 162.00                             | 179.00  | 1.0          | 5.0                         | 234.0                           | 1.8                    |
| P4KE180     | P4KE180C    | 146.00                   | 162.00                             | 198.00  | 1.0          | 5.0                         | 258.0                           | 1.6                    |
| P4KE180A    | P4KE180CA   | 154.00                   | 171.00                             | 189.00  | 1.0          | 5.0                         | 246.0                           | 1.7                    |
| P4KE200     | P4KE200C    | 162.00                   | 180.00                             | 220.00  | 1.0          | 5.0                         | 287.0                           | 1.5                    |
| P4KE200A    | P4KE200CA   | 171.00                   | 190.00                             | 210.00  | 1.0          | 5.0                         | 274.0                           | 1.53                   |
| P4KE220     | P4KE220C    | 175.00                   | 198.00                             | 242.00  | 1.0          | 5.0                         | 344.0                           | 1.16                   |
| P4KE220A    | P4KE220CA   | 185.00                   | 209.00                             | 231.00  | 1.0          | 5.0                         | 328.0                           | 1.22                   |
| P4KE250     | P4KE250C    | 202.00                   | 225.00                             | 275.00  | 1.0          | 5.0                         | 360.0                           | 1.1                    |
| P4KE250A    | P4KE250CA   | 214.00                   | 237.00                             | 263.00  | 1.0          | 5.0                         | 344.0                           | 1.16                   |
| P4KE300     | P4KE300C    | 243.00                   | 270.00                             | 330.00  | 1.0          | 5.0                         | 430.0                           | 0.93                   |
| P4KE300A    | P4KE300CA   | 256.00                   | 285.00                             | 315.00  | 1.0          | 5.0                         | 414.0                           | 0.97                   |
| P4KE350     | P4KE350C    | 284.00                   | 315.00                             | 385.00  | 1.0          | 5.0                         | 504.0                           | 0.79                   |
| P4KE350A    | P4KE350CA   | 300.00                   | 332.00                             | 368.00  | 1.0          | 5.0                         | 482.0                           | 0.83                   |
| P4KE400     | P4KE400C    | 324.00                   | 360.00                             | 440.00  | 1.0          | 5.0                         | 574.0                           | 0.70                   |
| P4KE400A    | P4KE400CA   | 342.00                   | 380.00                             | 420.00  | 1.0          | 5.0                         | 548.0                           | 0.73                   |