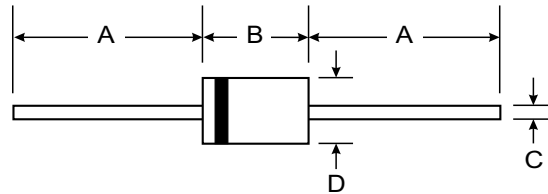


### Features

- Excellent Clamping Capability
- Fast Response Time
- Low Zener Impedance
- Low Leakage Current



### Mechanical Data

- Case : Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Cathode polarity band
- Mounting position : Any
- Weight : 2.73 grams

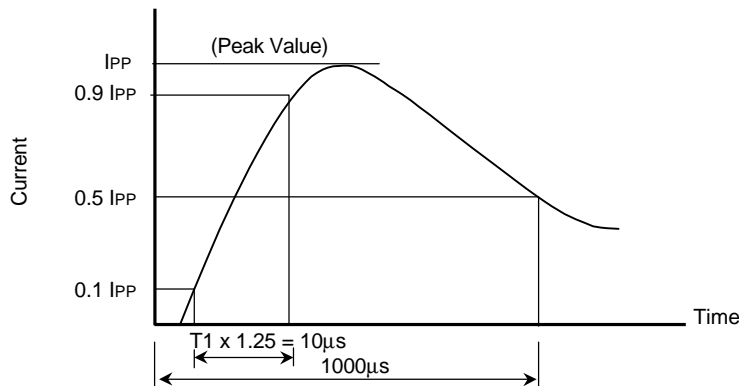
| R-6                  |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 25.4 | —    |
| B                    | 8.60 | 9.10 |
| C                    | 1.20 | 1.30 |
| D                    | 8.60 | 9.10 |
| All Dimensions in mm |      |      |

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

| Rating  | Symbol         | Value         | Unit             |
|---|----------------|---------------|------------------|
| Peak Pulse Power Dissipation (10X1000 $\mu\text{s}$ , see Fig.1 )                         | $P_{PK}$       | 15,000        | Watts            |
| Steady State Power Dissipation  | $P_D$          | 7.0           | Watts            |
| Peak Forward Surge Current, 8.3ms Single Half Sine Wave<br>(Uni-directional devices only) | $I_{FSM}$      | 200           | Amps.            |
| Operating and Storage Temperature Range   | $T_J, T_{STG}$ | - 55 to + 150 | $^\circ\text{C}$ |

This pulse is a standard test waveform used for protection devices.

Fig. 1





| Part Number | Reverse Stand Off Voltage | Breakdown Voltage @ $I_T$ |       | Maximum Reverse Leakage @ $V_R$ | Maximum Clamping Voltage @ $I_{PP}$ | Maximum Peak Pulse Current | Max. Voltage Temperature Variation of $V_{BR}$ (mV/°C) |
|-------------|---------------------------|---------------------------|-------|---------------------------------|-------------------------------------|----------------------------|--|
|             | $V_R$                     | $V_{BR}$ (V)              | $I_T$ | $I_R$                           | $V_C$                               | $I_{PP}$                   |  |
|             | (V)                       | Min.                      | (mA)  | ( $\mu$ A)                      | (V)                                 | (A)                        |  |
| 15KP12A     | 12                        | 13.3                      | 50.0  | 10,000                          | 22.0                                | 658                        | 12   |
| 15KP12CA    | 12                        | 13.3                      | 50.0  | 10,000                          | 19.9                                | 725                        | 12   |
| 15KP13A     | 13                        | 14.4                      | 50.0  | 10,000                          | 23.8                                | 607                        | 13   |
| 15KP13CA    | 13                        | 14.4                      | 50.0  | 10,000                          | 21.5                                | 669                        | 13   |
| 15KP14A     | 14                        | 15.6                      | 50.0  | 8,000                           | 25.8                                | 564                        | 14   |
| 15KP14CA    | 14                        | 15.6                      | 50.0  | 8,000                           | 23.2                                | 622                        | 14   |
| 15KP15A     | 15                        | 16.7                      | 50.0  | 8,000                           | 26.9                                | 526                        | 16   |
| 15KP15CA    | 15                        | 16.7                      | 50.0  | 8,000                           | 24.4                                | 580                        | 16   |
| 15KP16A     | 16                        | 17.8                      | 50.0  | 8,000                           | 28.8                                | 493                        | 19   |
| 15KP16CA    | 16                        | 17.8                      | 50.0  | 8,000                           | 26.0                                | 544                        | 17   |
| 15KP17A     | 17                        | 18.9                      | 50.0  | 5,000                           | 32.2                                | 464                        | 19   |
| 15KP17CA    | 17                        | 18.9                      | 50.0  | 5,000                           | 29.3                                | 512                        | 17   |
| 15KP18A     | 18                        | 20.0                      | 50.0  | 5,000                           | 34.2                                | 439                        | 20   |
| 15KP18CA    | 18                        | 20.0                      | 50.0  | 5,000                           | 30.9                                | 485                        | 18   |
| 15KP20A     | 20                        | 22.2                      | 20.0  | 1,500                           | 37.9                                | 396                        | 24   |
| 15KP20CA    | 20                        | 22.2                      | 20.0  | 1,500                           | 34.3                                | 437                        | 21   |
| 15KP22A     | 22                        | 24.4                      | 10.0  | 500                             | 41.1                                | 365                        | 27   |
| 15KP22CA    | 22                        | 24.4                      | 10.0  | 500                             | 37.1                                | 404                        | 24   |
| 15KP24A     | 24                        | 26.7                      | 5.0   | 150                             | 45.0                                | 333                        | 30   |
| 15KP24CA    | 24                        | 26.7                      | 5.0   | 150                             | 40.7                                | 369                        | 27   |
| 15KP26A     | 26                        | 28.9                      | 5.0   | 50                              | 48.7                                | 308                        | 32   |
| 15KP26CA    | 26                        | 28.9                      | 5.0   | 50                              | 44.0                                | 341                        | 29   |
| 15KP28A     | 28                        | 31.1                      | 5.0   | 25                              | 52.4                                | 286                        | 35   |
| 15KP28CA    | 28                        | 31.1                      | 5.0   | 25                              | 47.5                                | 316                        | 31   |
| 15KP30A     | 30                        | 33.3                      | 5.0   | 15                              | 56.2                                | 267                        | 37   |
| 15KP30CA    | 30                        | 33.3                      | 5.0   | 15                              | 50.7                                | 296                        | 33   |
| 15KP33A*    | 33                        | 36.7                      | 5.0   | 10                              | 60.6                                | 248                        | 42   |
| 15KP33CA    | 33                        | 36.7                      | 5.0   | 10                              | 54.8                                | 274                        | 38   |
| 15KP36A*    | 36                        | 40.0                      | 5.0   | 10                              | 66.0                                | 227                        | 46   |
| 15KP36CA*   | 36                        | 40.0                      | 5.0   | 10                              | 59.7                                | 251                        | 41   |
| 15KP40A*    | 40                        | 44.4                      | 5.0   | 10                              | 72.8                                | 206                        | 51   |
| 15KP40CA    | 40                        | 44.4                      | 5.0   | 10                              | 65.8                                | 228                        | 46   |
| 15KP43A     | 43                        | 47.8                      | 5.0   | 10                              | 77.1                                | 195                        | 55   |
| 15KP43CA    | 43                        | 47.8                      | 5.0   | 10                              | 69.7                                | 215                        | 50   |
| 15KP45A     | 45                        | 50.0                      | 5.0   | 10                              | 80.7                                | 186                        | 57   |
| 15KP45CA    | 45                        | 50.0                      | 5.0   | 10                              | 73.0                                | 205                        | 52   |
| 15KP48A*    | 48                        | 53.3                      | 5.0   | 10                              | 85.9                                | 175                        | 62   |
| 15KP48CA*   | 48                        | 53.3                      | 5.0   | 10                              | 77.7                                | 193                        | 56   |
| 15KP51A     | 51                        | 56.7                      | 5.0   | 10                              | 91.5                                | 164                        | 66   |
| 15KP51CA    | 51                        | 56.7                      | 5.0   | 10                              | 82.5                                | 181                        | 60   |
| 15KP54A     | 54                        | 60.0                      | 5.0   | 10                              | 96.8                                | 155                        | 70   |
| 15KP54CA    | 54                        | 60.0                      | 5.0   | 10                              | 87.5                                | 171                        | 63   |
| 15KP58A     | 58                        | 64.4                      | 5.0   | 10                              | 104                                 | 144                        | 76   |
| 15KP58CA    | 58                        | 64.4                      | 5.0   | 10                              | 94                                  | 160                        | 68   |
| 15KP60A     | 60                        | 66.7                      | 5.0   | 10                              | 107                                 | 140                        | 78   |
| 15KP60CA    | 60                        | 66.7                      | 5.0   | 10                              | 97.3                                | 154                        | 70   |
| 15KP64A     | 64                        | 71.1                      | 5.0   | 10                              | 115                                 | 130                        | 84   |
| 15KP64CA    | 64                        | 71.1                      | 5.0   | 10                              | 104                                 | 144                        | 76   |
| 15KP70A     | 70                        | 77.8                      | 5.0   | 10                              | 126                                 | 119                        | 92   |
| 15KP70CA*   | 70                        | 77.8                      | 5.0   | 10                              | 114                                 | 132                        | 83   |



| Part Number | Reverse Stand Off Voltage | Breakdown Voltage @ $I_T$ |       | Maximum Reverse Leakage @ $V_R$ | Maximum Clamping Voltage @ $I_{PP}$ | Maximum Peak Pulse Current | Max. Voltage Temperature Variation of $V_{BR}$ (mV/°C) |
|-------------|---------------------------|---------------------------|-------|---------------------------------|-------------------------------------|----------------------------|--|
|             | $V_R$                     | $V_{BR}$ (V)              | $I_T$ | $I_R$                           | $V_C$                               | $I_{PP}$                   |  |
|             | (V)                       | Min.                      | (mA)  | ( $\mu$ A)                      | (V)                                 | (A)                        |  |
| 15KP75A     | 75                        | 83.3                      | 5.0   | 10                              | 135                                 | 111                        | 100  |
| 15KP75CA    | 75                        | 83.3                      | 5.0   | 10                              | 122                                 | 123                        | 89   |
| 15KP78A     | 78                        | 86.7                      | 5.0   | 10                              | 140                                 | 107                        | 104  |
| 15KP78CA    | 78                        | 86.7                      | 5.0   | 10                              | 126                                 | 119                        | 93   |
| 15KP85A     | 85                        | 94.4                      | 5.0   | 10                              | 152                                 | 99                         | 113  |
| 15KP85CA    | 85                        | 94.4                      | 5.0   | 10                              | 137                                 | 109                        | 102  |
| 15KP90A     | 90                        | 100                       | 5.0   | 10                              | 160                                 | 94                         | 120  |
| 15KP90CA    | 90                        | 100                       | 5.0   | 10                              | 146                                 | 103                        | 110  |
| 15KP100A    | 100                       | 111                       | 5.0   | 10                              | 179                                 | 84                         | 134  |
| 15KP100CA   | 100                       | 111                       | 5.0   | 10                              | 162                                 | 93                         | 123  |
| 15KP110A    | 110                       | 122                       | 5.0   | 10                              | 196                                 | 77                         | 147  |
| 15KP110CA   | 110                       | 122                       | 5.0   | 10                              | 178                                 | 84                         | 133  |
| 15KP120A    | 120                       | 133                       | 5.0   | 10                              | 214                                 | 70                         | 161  |
| 15KP120CA   | 120                       | 133                       | 5.0   | 10                              | 193                                 | 78                         | 146  |
| 15KP130A    | 130                       | 144                       | 5.0   | 10                              | 231                                 | 65                         | 174  |
| 15KP130CA   | 130                       | 144                       | 5.0   | 10                              | 209                                 | 72                         | 158  |
| 15KP150A    | 150                       | 167                       | 5.0   | 10                              | 268                                 | 56                         | 202  |
| 15KP150CA   | 150                       | 167                       | 5.0   | 10                              | 243                                 | 62                         | 184  |
| 15KP160A    | 160                       | 178                       | 5.0   | 10                              | 287                                 | 52                         | 216  |
| 15KP160CA   | 160                       | 178                       | 5.0   | 10                              | 259                                 | 58                         | 196  |
| 15KP170A    | 170                       | 189                       | 5.0   | 10                              | 304                                 | 49                         | 229  |
| 15KP170CA   | 170                       | 189                       | 5.0   | 10                              | 275                                 | 55                         | 208  |
| 15KP180A    | 180                       | 200                       | 5.0   | 10                              | 321                                 | 47                         | 242  |
| 15KP180CA   | 180                       | 200                       | 5.0   | 10                              | 287                                 | 52                         | 220  |
| 15KP200A    | 200                       | 222                       | 5.0   | 10                              | 356                                 | 42                         | 296  |
| 15KP200CA   | 200                       | 222                       | 5.0   | 10                              | 325                                 | 46                         | 274  |
| 15KP220A    | 220                       | 245                       | 5.0   | 10                              | 393                                 | 38                         | 297  |
| 15KP220CA   | 220                       | 245                       | 5.0   | 10                              | 347                                 | 43                         | 273  |
| 15KP240A    | 240                       | 267                       | 5.0   | 10                              | 428                                 | 35                         | 324  |
| 15KP240CA   | 240                       | 267                       | 5.0   | 10                              | 387                                 | 39                         | 300  |

**Note:**  
 Suffix " A " denotes 5% tolerance device , no suffix denotes a 10% tolerance device.  
 \* Preferred Voltages.

Fig. 2 - Peak Pulse Power vs. Pulse Time

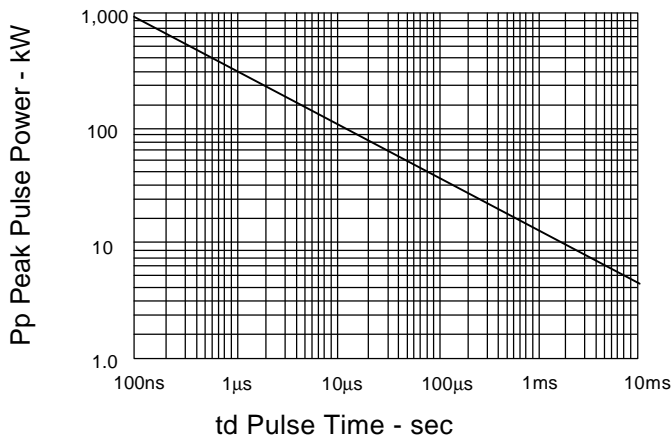


Fig. 3 - Typical Capacitance vs. Breakdown Voltage

