

RT100KP40A-400CA

TRANSIENT VOLTAGE SUPPRESSORS

V_{WM} : 40 - 400 Volts

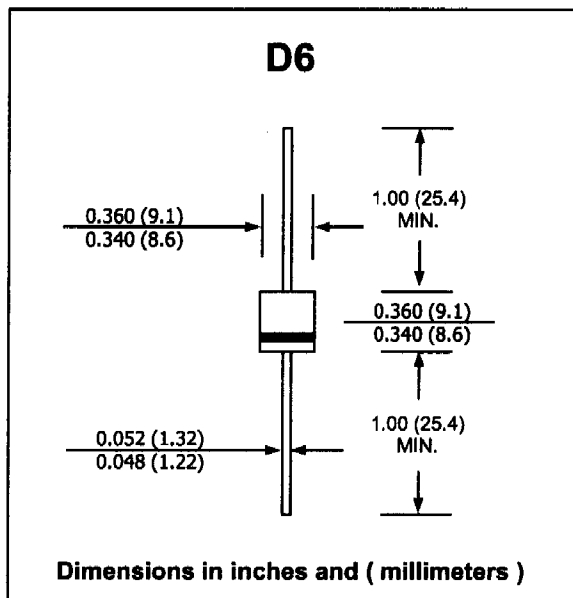
P_{PK} : 100,000 Watts

FEATURES :

- * Glass passivated junction chip
- * Excellent Clamping Capability
- * Fast Response Time
- * Low Leakage Current
- * Pb / RoHS Free

MECHANICAL DATA

- * Case : Void-free molded plastic body
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end except Bipolar.
- * Mounting position : Any
- * Weight : 2.1 grams



MAXIMUM RATINGS (Ta = 25 °C)

| Rating | Symbol | Value | Unit |
|---|-----------------------------------|---------------|------|
| Peak Pulse Power Dissipation (6.4/69 μs, see Fig.4) | P _{PK} | 100,000 | W |
| Steady State Power Dissipation at T _L =27.5 °C | P _D | 7.0 | W |
| Operating and Storage Temperature Range | T _J , T _{STG} | - 65 to + 150 | °C |



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ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

| Part Number ⁽¹⁾ <small>(Uni-directional)</small> | Reverse | Breakdown | | Maximum | Maximum | Maximum | Max. Voltage | |
|---|-----------|----------------------|------|--------------------|-----------------------------------|---------------------------|--------------|-----|
| | Stand Off | Voltage @ $I_{(BR)}$ | | Reverse | Clamping | Peak Pulse ⁽³⁾ | Temperature | |
| | Voltage | | | Leakage @ V_{WM} | Voltage @ I_{PP} ⁽²⁾ | Current @ 6.4/69 μ s | Coefficient | |
| | V_{WM} | V_{BR} (V) | | I_D | V_C | I_{PP} | of V_{BR} | |
| | (V) | Min. | Max. | (mA) | (μ A) | (A) | (mV/°C) | |
| RT100KP40A | 40 | 44.4 | 49.1 | 20 | 1500 | 78.6 | 1273* | 46 |
| RT100KP43A | 43 | 47.8 | 52.8 | 10 | 500 | 84.5 | 1184* | 50 |
| RT100KP45A | 45 | 50.0 | 55.3 | 5 | 150 | 88.5 | 1130* | 52 |
| RT100KP48A | 48 | 53.3 | 58.9 | 5 | 150 | 94.3 | 1061* | 56 |
| RT100KP51A | 51 | 56.7 | 62.7 | 5 | 50 | 101.0 | 990* | 60 |
| RT100KP54A | 54 | 60.0 | 66.3 | 5 | 25 | 106.0 | 943* | 63 |
| RT100KP58A | 58 | 64.4 | 71.2 | 5 | 15 | 114 | 878 | 68 |
| RT100KP60A | 60 | 66.7 | 73.7 | 5 | 15 | 118.0 | 848 | 71 |
| RT100KP64A | 64 | 71.1 | 78.6 | 5 | 10 | 126 | 795 | 76 |
| RT100KP70A | 70 | 77.8 | 86.0 | 5 | 10 | 138 | 725 | 83 |
| RT100KP75A | 75 | 83.3 | 92.1 | 5 | 10 | 147 | 680 | 89 |
| RT100KP78A | 78 | 86.7 | 95.8 | 5 | 10 | 153 | 655 | 93 |
| RT100KP85A | 85 | 94.4 | 104 | 5 | 15 | 166 | 602 | 102 |
| RT100KP90A | 90 | 100 | 111 | 5 | 15 | 178 | 563 | 109 |
| RT100KP100A | 100 | 111 | 123 | 5 | 10 | 197 | 508 | 121 |
| RT100KP110A | 110 | 122 | 135 | 5 | 10 | 216 | 463 | 133 |
| RT100KP120A | 120 | 133 | 147 | 5 | 10 | 235 | 426 | 145 |
| RT100KP130A | 130 | 144 | 159 | 5 | 10 | 254 | 394 | 157 |
| RT100KP150A | 150 | 167 | 185 | 5 | 10 | 296 | 338 | 183 |
| RT100KP160A | 160 | 178 | 197 | 5 | 10 | 315 | 318 | 195 |
| RT100KP170A | 170 | 189 | 209 | 5 | 10 | 334 | 300 | 207 |
| RT100KP180A | 180 | 200 | 221 | 5 | 10 | 354 | 283 | 219 |
| RT100KP200A | 200 | 222 | 245 | 5 | 10 | 392 | 256 | 243 |
| RT100KP220A | 220 | 245 | 271 | 5 | 10 | 434 | 231 | 269 |
| RT100KP250A | 250 | 278 | 308 | 5 | 10 | 493 | 203 | 306 |
| RT100KP260A | 260 | 289 | 320 | 5 | 10 | 512 | 196 | 318 |
| RT100KP280A | 280 | 311 | 345 | 5 | 10 | 552 | 181 | 344 |
| RT100KP300A | 300 | 333 | 369 | 5 | 10 | 590 | 170 | 368 |
| RT100KP350A | 350 | 389 | 431 | 5 | 10 | 690 | 145 | 430 |
| RT100KP400A | 400 | 444 | 492 | 5 | 10 | 787 | 127 | 490 |

Note:

- (1) For bidirectional construction, indicate a CA suffix (instead of A) after the part number
- (2) Clamping voltage does not include any variable parasitic lead inductance effects observed during the 6.4 us rise time due to lead length.
- (3) The Maximum Peak Pulse Current Current (IPP) shown represents the performance capabilities by design.

*Surge test screening is only performed up to 900 A (test equipment limitations)

RATING AND CHARACTERISTIC CURVES (RT100KP40A-400CA)

FIG.1 - PULSE DERATING CURVE

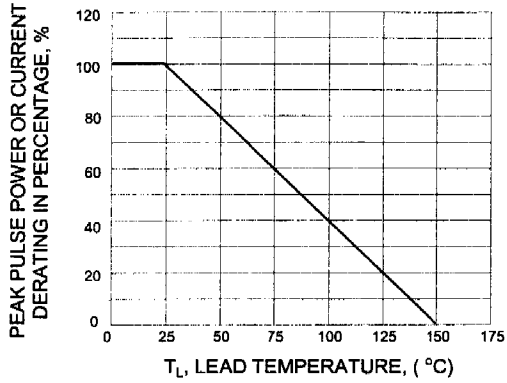


FIG.2 - PULSE WAVEFORM

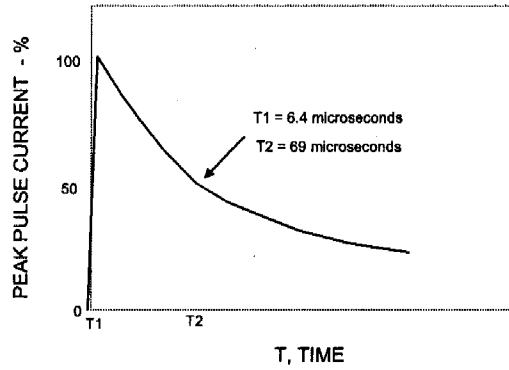


FIG.3 - STEADY STATE POWER DERATING

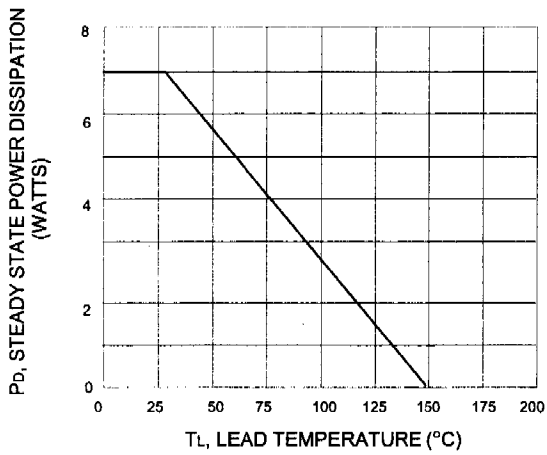


FIG.4 - PEAK PULSE POWER RATING CURVE

