

20KPxxA SERIES

V_R : 20 - 300Volts
P_{PK} : 20,000 Watts

FEATURES :

- * Glass passivated junction chip
- * Excellent Clamping Capability
- * Fast Response Time
- * Low Zener Impedance
- * Low Leakage Current
- * Fast Response Time : typically less than 1.0ps from 0 volt to BV, Bidirectional less than 10ns
- * High temperature soldering guaranteed : 265°C/10 second
0.375", (9.5mm) lead leagth.
- * Pb / RoHS Free

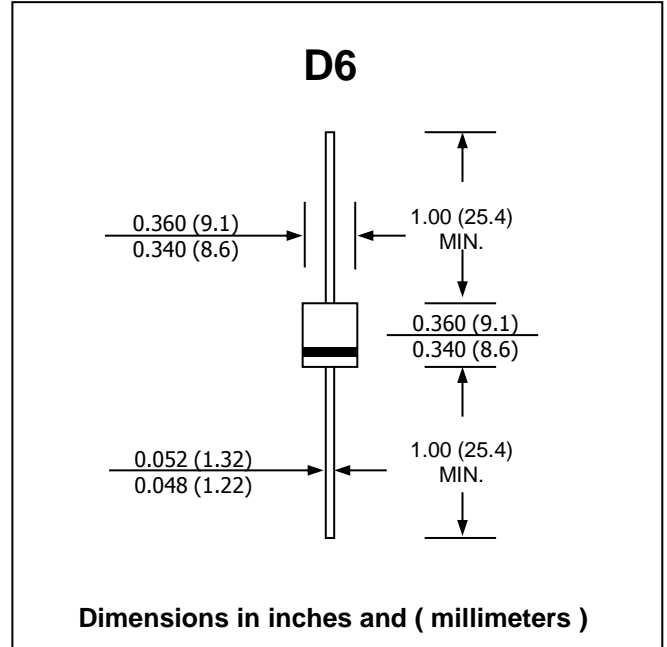
MECHANICAL DATA

- * 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
- * Mounting position : Any
- * Weight : 2.1 grams

MAXIMUM RATINGS (Ta = 25°C)

| Rating | Symbol | Value | Unit |
|--|-----------------------------------|---------------|------|
| Peak Pulse Power Dissipation (10X1000µs, see Fig.1) | P _{PK} | 20,000 | W |
| Steady State Power Dissipation | P _D | 8.0 | W |
| Operating and Storage Temperature Range | T _J , T _{STG} | - 55 to + 175 | °C |

TRANSIENT VOLTAGE SUPPRESSORS



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

| Type No. | Reverse Stand Off Voltage | Breakdown Voltage @ I_T | | Maximum Reverse Leakage @ V_R | Maximum Clamping Voltage @ I_{PP} | Maximum Peak Pulse Current |
|----------|---------------------------|---------------------------|-------|---------------------------------|-------------------------------------|----------------------------|
| | V_{WM} | V_{BR} (V) | I_T | I_R | V_C | I_{PP} |
| | (V) | Min. | (mA) | (μ A) | (V) | (A) |
| 20KP20A | 20 | 22.34 | 50 | 5000 | 36.8 | 548.9 |
| 20KP24A | 24 | 26.81 | 50 | 5000 | 41.2 | 490.3 |
| 20KP26A | 26 | 29.04 | 50 | 2000 | 44.7 | 451.9 |
| 20KP28A | 28 | 31.28 | 50 | 1000 | 48.0 | 420.8 |
| 20KP30A | 30 | 33.51 | 5 | 250 | 51.5 | 392.2 |
| 20KP32A | 32 | 35.74 | 5 | 150 | 54.3 | 372.0 |
| 20KP34A | 34 | 38.00 | 5 | 50 | 57.5 | 351.3 |
| 20KP36A | 36 | 40.20 | 5 | 20 | 61.5 | 328.5 |
| 20KP40A | 40 | 44.70 | 5 | 15 | 67.8 | 297.9 |
| 20KP44A | 44 | 49.10 | 5 | 2 | 72.7 | 277.9 |
| 20KP48A | 48 | 53.60 | 5 | 2 | 79.4 | 254.4 |
| 20KP52A | 52 | 58.10 | 5 | 2 | 85.8 | 235.4 |
| 20KP56A | 56 | 62.60 | 5 | 2 | 92.6 | 218.1 |
| 20KP60A | 60 | 67.00 | 5 | 2 | 97.6 | 207.0 |
| 20KP64A | 64 | 71.50 | 5 | 2 | 104.0 | 194.2 |
| 20KP68A | 68 | 76.00 | 5 | 2 | 110.0 | 183.6 |
| 20KP70A | 70 | 77.80 | 5 | 2 | 114.0 | 177.2 |
| 20KP72A | 72 | 80.40 | 5 | 2 | 116.0 | 174.1 |
| 20KP80A | 80 | 89.40 | 5 | 2 | 130.0 | 155.4 |
| 20KP88A | 88 | 98.30 | 5 | 2 | 142.0 | 142.3 |
| 20KP96A | 96 | 107.20 | 5 | 2 | 155.0 | 130.3 |
| 20KP104A | 104 | 116.20 | 5 | 2 | 168.0 | 120.2 |
| 20KP112A | 112 | 125.10 | 5 | 2 | 182.0 | 111.0 |
| 20KP120A | 120 | 134.00 | 5 | 2 | 194.0 | 104.1 |
| 20KP132A | 132 | 147.40 | 5 | 2 | 213.0 | 94.8 |
| 20KP144A | 144 | 160.80 | 5 | 2 | 232.0 | 87.1 |
| 20KP160A | 160 | 178.70 | 5 | 2 | 258.0 | 78.3 |
| 20KP172A | 172 | 192.10 | 5 | 2 | 277.0 | 72.9 |
| 20KP180A | 180 | 201.10 | 5 | 2 | 291.0 | 69.4 |
| 20KP192A | 192 | 214.50 | 5 | 2 | 309.0 | 65.4 |
| 20KP204A | 204 | 227.90 | 5 | 2 | 329.0 | 61.4 |
| 20KP216A | 216 | 241.30 | 5 | 2 | 348.0 | 58.0 |
| 20KP232A | 232 | 259.10 | 5 | 2 | 374.0 | 54.0 |
| 20KP240A | 240 | 268.10 | 5 | 2 | 387.0 | 52.2 |
| 20KP256A | 256 | 286.00 | 5 | 2 | 412.0 | 49.0 |
| 20KP280A | 280 | 312.80 | 5 | 2 | 451.0 | 44.8 |
| 20KP300A | 300 | 335.10 | 5 | 2 | 483.0 | 41.8 |

Note: (1) For parts without A, the V_{BR} is $\pm 10\%$ and V_C is 5% higher than with A parts.

RATING AND CHARACTERISTIC CURVES (20KPxxA SERIES)

FIG.1 - PULSE WAVE FORM

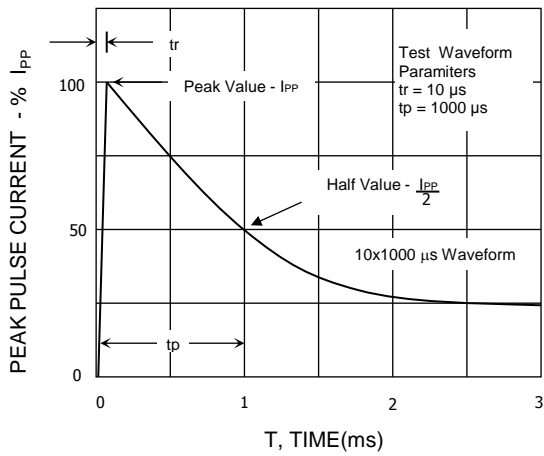


FIG.2 - PEAK PULSE POWER VS. PULSE TIME

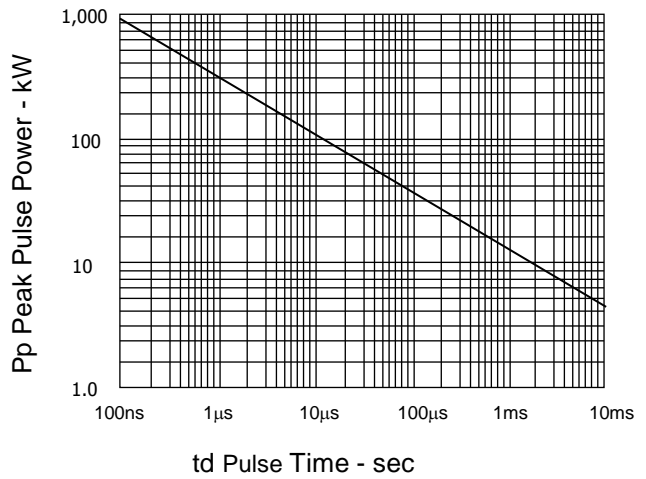


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

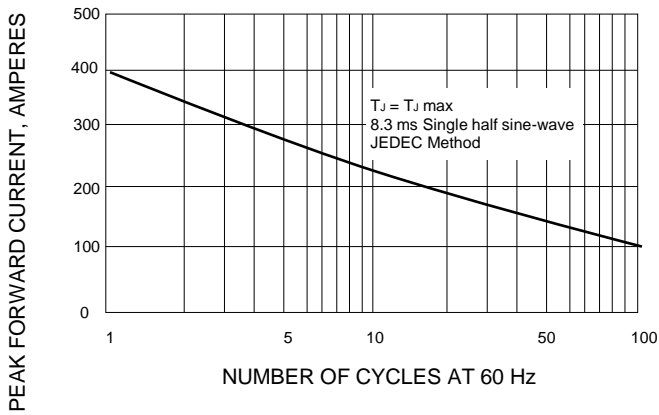


FIG.4 - PULSE DERATING CURVE

