



GP15A THRU GP15M

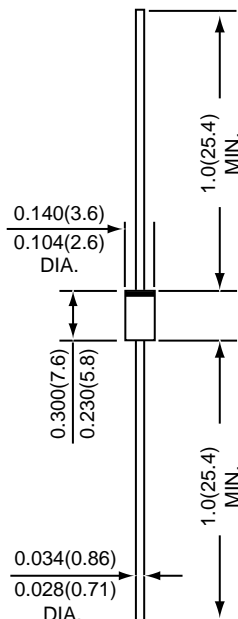
SINTERED GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.5 Amperes

PATENTED

DO-204AC



*Dimensions in inches and (millimeters)

SUPEREX II™



FEATURES

- * GPRC (Glass Passivated Rectifier Chip) inside
- * Glass passivated cavity-free junction
- * Capable of meeting environmental standards of MIL-S-19500
- * 1.5 Amperes operation at $T_A=55^{\circ}\text{C}$ with no thermal runaway
- * Typical IR less than 0.1uA
- * High temperature soldering guaranteed: $260^{\circ}\text{C}/10$ seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3 kg) tension
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

MECHANICAL DATA

Case : JEDEC DO-204AC molded plastic over glass body
Terminals : Plated axial leads , solderable per MIL-STD-750, Method 2026
Polarity : Color band denotes cathode end
Mounting Position : Any
Weight : 0.015 ounces , 0.4 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Ratings at 25 °C ambient temperature unless otherwise specified. | SYMBOLS | GP15 | | | | | | | UNITS |
|---|--------------------------------|---|-----|-----|-----|-----|-----|------|-------------------------------|
| | | A | B | D | G | J | K | M | |
| Maximum repetitive peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_L=55^{\circ}\text{C}$ | I (AV) | 1.5 | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM | 50 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 1.5 A | VF | 1.0 | | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | IR | $T_A=25^{\circ}\text{C}$: 5 $T_A=125^{\circ}\text{C}$: 50 $T_A=150^{\circ}\text{C}$: 100 | | | | | | | uA |
| Typical junction capacitance (NOTE 1) | CJ | 20 | | | | | | | pF |
| Typical thermal resistance (NOTE 2) | R θ JA R θ JL | $R \theta_{JA}$: 45 $R \theta_{JL}$: 20 | | | | | | | $^{\circ}\text{C} / \text{W}$ |
| Operating junction and storage temperature range | TJ,TSTG | -65 to +175 | | | | | | | $^{\circ}\text{C}$ |

NOTES : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
 (2) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead lengths, P.C.B. mounted.

RATINGS AND CHARACTERISTIC CURVES GP15A THRU GP15M

FIG.1 - FORWARD CURRENT DERATING CURVE

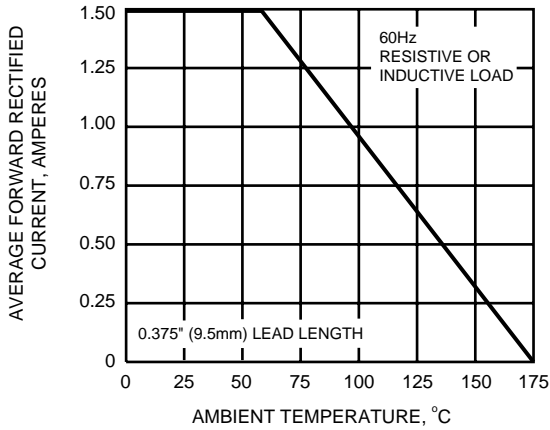


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

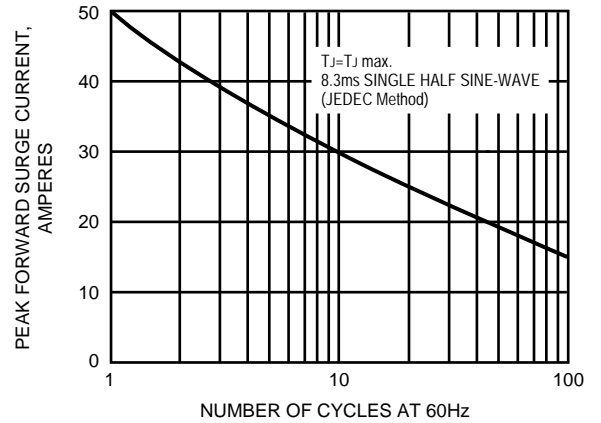


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

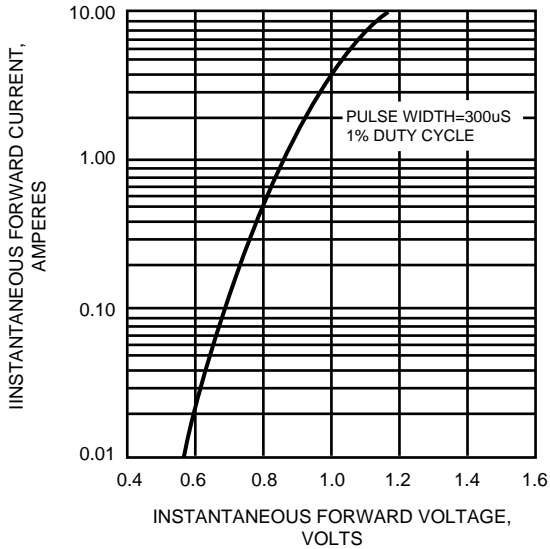


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

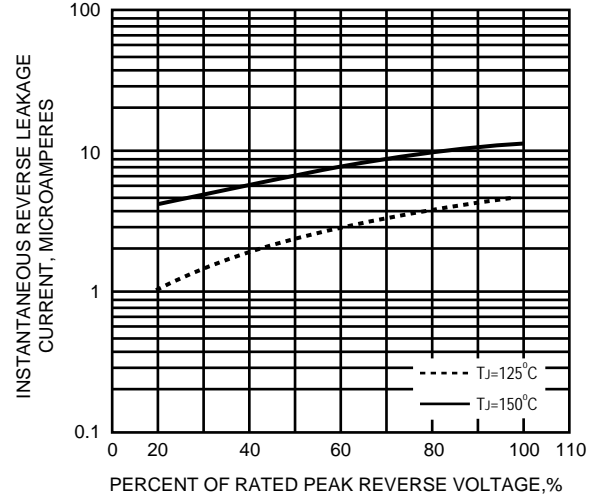


FIG.5 - TYPICAL JUNCTION CAPACITANCE

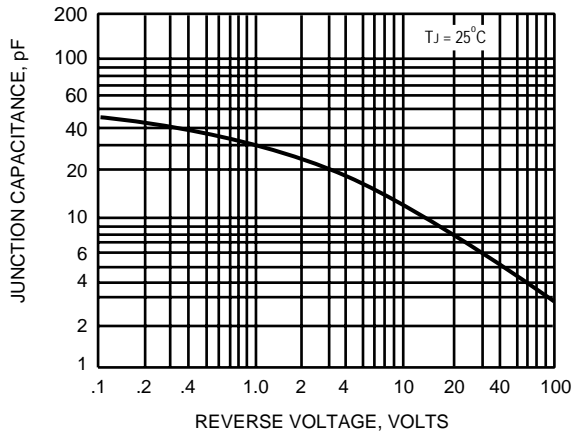


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

