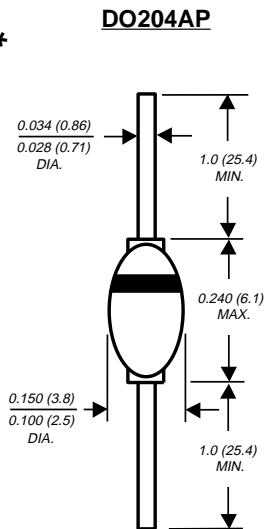


GI1-1200 THRU GI1-1600

MINIATURE HIGH VOLTAGE GLASS PASSIVATED RECTIFIER

Reverse Voltage - 1200 to 1600 Volts Forward Current - 1.0 Ampere

PATENTED *



Dimensions in inches and (millimeters)

* Brazed-lead assembly is covered by Patent No. 3,930,306

FEATURES

- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free junction package
- ◆ 1.0 Ampere operation at $T_A=75^\circ\text{C}$ with no thermal runaway
- ◆ Typical I_R less than $0.1\mu\text{A}$
- ◆ Hermetically sealed package
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ High temperature soldering guaranteed: $350^\circ\text{C}/10$ seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



MECHANICAL DATA

Case: JEDEC DO-204AP solid glass body
Terminals: Solder plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.02 ounce, 0.56 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | GI1-1200 | GI1-1400 | GI1-1600 | UNITS |
|---|-----------------|--|----------|----------|---------------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 1200 | 1400 | 1600 | Volts |
| Maximum RMS voltage | V_{RMS} | 840 | 980 | 1120 | Volts |
| Maximum DC blocking voltage | V_{DC} | 1200 | 1400 | 1600 | Volts |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$ | $I_{(AV)}$ | 1.0 | | | Amp |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30.0 | | | Amps |
| Maximum instantaneous forward voltage at 1.0A 3.14A | V_F | 1.1 1.3 | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | I_R | $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$ 10.0 100.0 | | | μA |
| Maximum reverse recovery time (NOTE 1) | t_{fr} | 25.0 | | | μs |
| Maximum forward recovery time (NOTE 2) | t_{fr} | 1.0 | | | μs |
| Typical junction capacitance (NOTE 3) | C_J | 15.0 | | | pF |
| Typical thermal resistance (NOTE 4) | $R_{\theta JA}$ | 55.0 | | | $^\circ\text{C}/\text{W}$ |
| Operating junction and storage temperature range | T_J, T_{STG} | -65 to +175 | | | $^\circ\text{C}$ |

NOTES:

- (1) Measured on Tektronix Type "S" recovery plug-in, Tektronix 545 scope or equivalent $I_{FM}=20\text{mA}$, $I_{RM}=2\text{mA}$
- (2) Measured on Tektronix Type "S" recovery plug-in, Tektronix 545 or equivalent, $I_{FM}=20\text{mA}$
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (4) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES GI1-1200 AND GI1-1600

FIG. 1 - FORWARD CURRENT DERATING CURVE

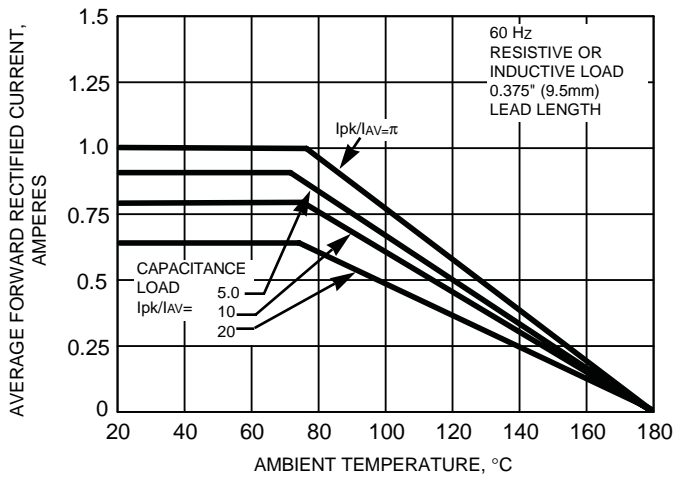


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

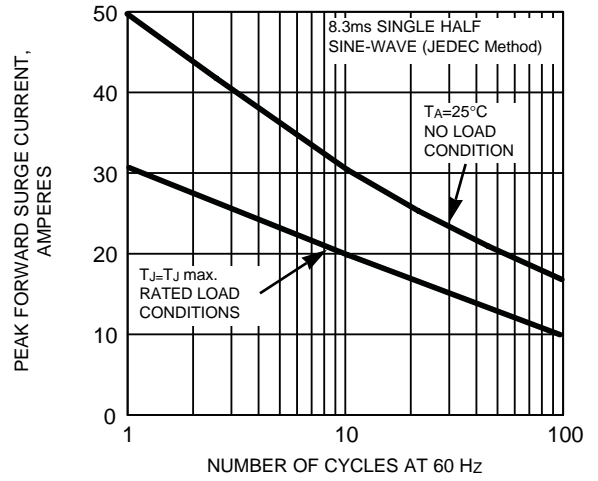


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

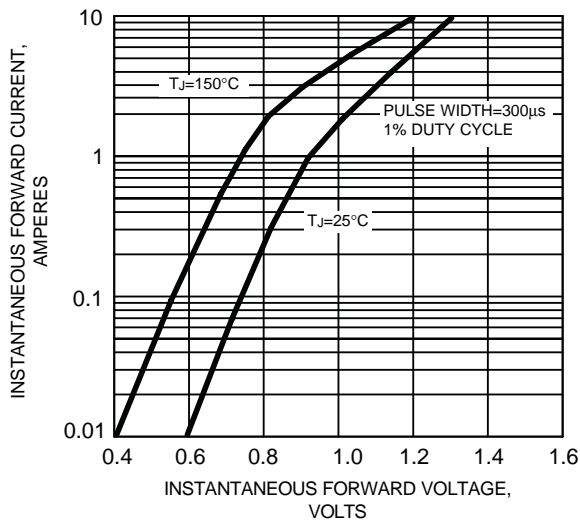


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

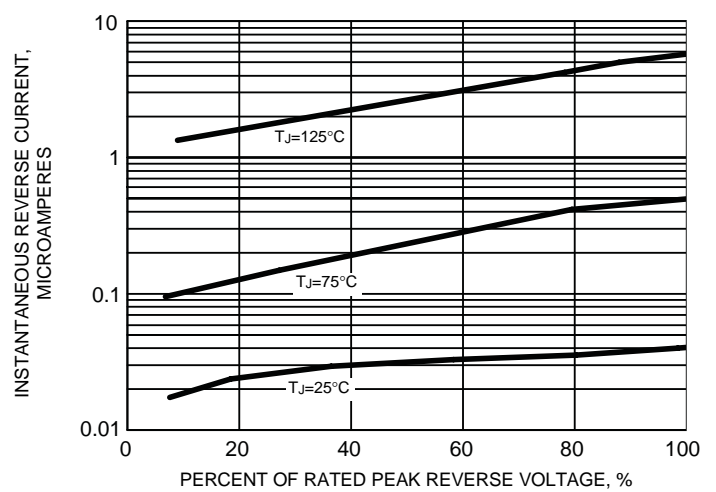


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

