

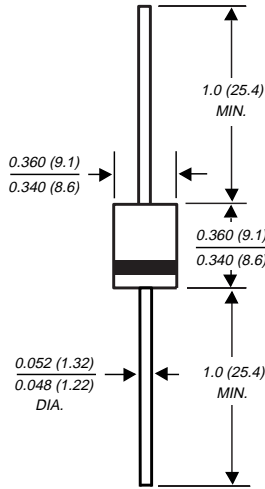
GI820 THRU GI828

FAST SWITCHING PLASTIC RECTIFIER

Reverse Voltage - 50 to 800 Volts

Forward Current - 5.0 Amperes

Case Style P600



Dimensions in inches and (millimeters)

FEATURES

- ♦ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ♦ High surge current capability
- ♦ High forward current operation
- ♦ Fast switching for high efficiency
- ♦ Construction utilizes void-free molded plastic technique
- ♦ Uniform molded body
- ♦ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



MECHANICAL DATA

Case: Void-free molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.07 ounce, 2.1grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | GI820 | GI821 | GI822 | GI824 | GI826 | GI828 | UNITS |
|---|-----------------|--------------|-------|-------|-------|-------|-------|---------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | Volts |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | Volts |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | Volts |
| Maximum non-repetitive peak reverse voltage | V_{RSM} | 75 | 150 | 250 | 450 | 650 | 880 | Volts |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$ | $I_{(AV)}$ | 5.0 | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 300.0 | | | | | | Amps |
| Maximum instantaneous forward voltage at 5.0A $T_J=25^\circ\text{C}$ at 15.7A $T_J=150^\circ\text{C}$ | V_F | 1.10 1.05 | | | | | | Volts |
| Maximum reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$ | I_R | 10.0 1.0 | | | | | | μA mA |
| Typical junction capacitance (NOTE 1) | C_J | 300.0 | | | | | | pF |
| Maximum reverse recovery time (NOTE 2) | t_{rr} | 200.0 | | | | | | ns |
| Maximum reverse recovery current (NOTE 2) | $I_{RM(REC)}$ | 2.0 | | | | | | Amps |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | 10.0 | | | | | | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range | T_J, T_{STG} | -50 to +150 | | | | | | $^\circ\text{C}$ |

NOTES:

(1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(2) Reverse recovery test conditions: $I_F=1.0\text{A}$, $V_R=30\text{V}$, $di/dt=50\text{A}/\mu\text{s}$, and $I_{rr}=10\% I_{RM}$ for measurement of t_{rr}

(3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, with both leads equally to heat sink

RATINGS AND CHARACTERISTIC CURVES G1820 THRU G1828

FIG. 1 - FORWARD CURRENT DERATING CURVE

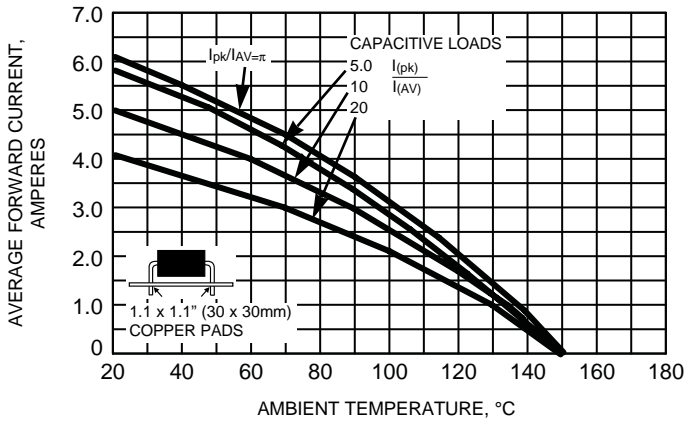


FIG. 2 - FORWARD CURRENT DERATING CURVE

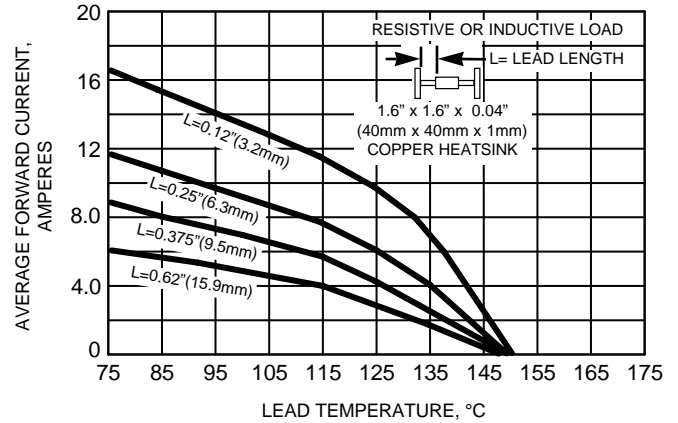


FIG. 3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

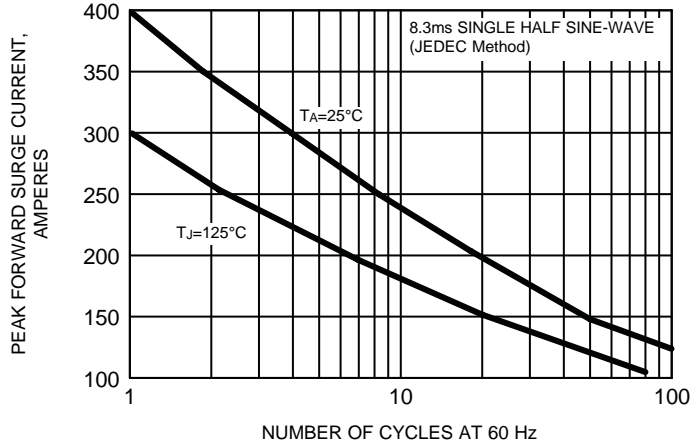


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

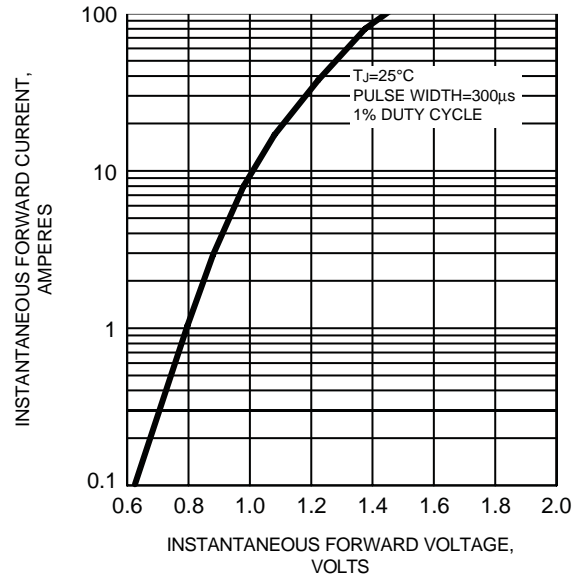


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

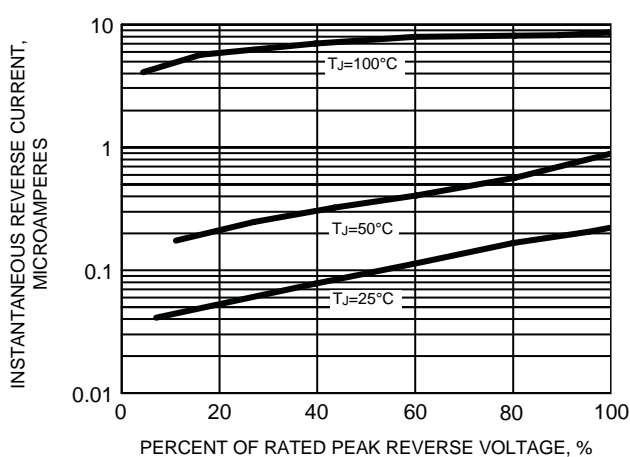


FIG. 6 - TYPICAL THERMAL RESISTANCE

