

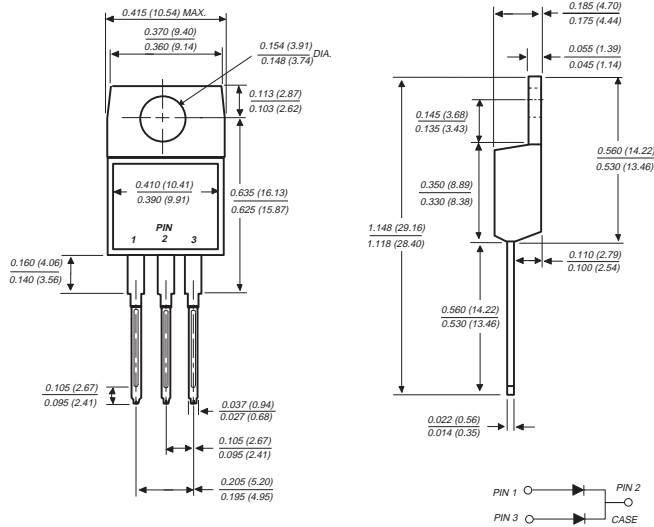
# GI2401 THRU GI2404

## GLASS PASSIVATED PLASTIC RECTIFIER

Reverse Voltage - 50 to 200 Volts

Forward Current - 16.0 Amperes

### TO-220AB



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Dual rectifier construction, positive centertap
- ◆ Glass passivated chip junctions
- ◆ Low power loss
- ◆ High surge capability
- ◆ Superfast recovery times for high efficiency
- ◆ High temperature soldering guaranteed: 250°C, 0.16" (4.06mm) from case for 10 seconds



### MECHANICAL DATA

**Case:** JEDEC TO-220AB molded plastic body over passivated chips

**Terminals:** Plated lead solderable per MIL-STD-750, Method 2026

**Polarity:** As marked

**Mounting Position:** Any

**Mounting Torque:** 5 in. - lbs. max.

**Weight:** 0.08 ounce, 2.24 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

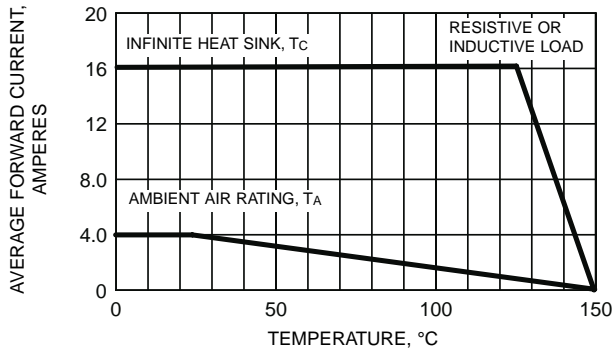
	SYMBOLS	GI2401	GI2402	GI2403	GI2404	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	150	200	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	Volts
Maximum average forward rectified current at $T_C=125^\circ\text{C}$	$I_{(AV)}$	16.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_C=125^\circ\text{C}$	$I_{FSM}$	125.0				Amps
Maximum instantaneous forward voltage per leg at: $I_F=4\text{A}, T_J=25^\circ\text{C}$ $I_F=8\text{A}, T_J=25^\circ\text{C}$ $I_F=4\text{A}, T_J=100^\circ\text{C}$ $I_F=8\text{A}, T_J=100^\circ\text{C}$	$V_F$	0.975 0.900 0.800 0.895				Volts
Maximum DC reverse current at rated DC blocking voltage $T_C=25^\circ\text{C}$ $T_C=100^\circ\text{C}$	$I_R$	50.0 150.0			5.0 500.0	$\mu\text{A}$
Maximum reverse recovery time per leg (NOTE 1)	$t_{rr}$	35.0				ns
Typical junction capacitance per leg (NOTE 2)	$C_J$	85.0				pF
Typical thermal resistance per leg (NOTE 3)	$R_{\theta JA}$ $R_{\theta JC}$	16.0 2.2				$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +150				$^\circ\text{C}$

#### NOTES:

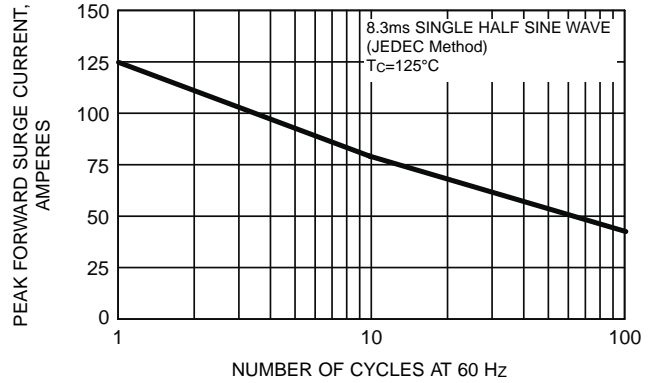
- (1) Reverse recovery test conditions:  $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to case and from junction to ambient per leg mounted on heatsink

# RATINGS AND CHARACTERISTICS CURVES GI2401 THRU GI2404

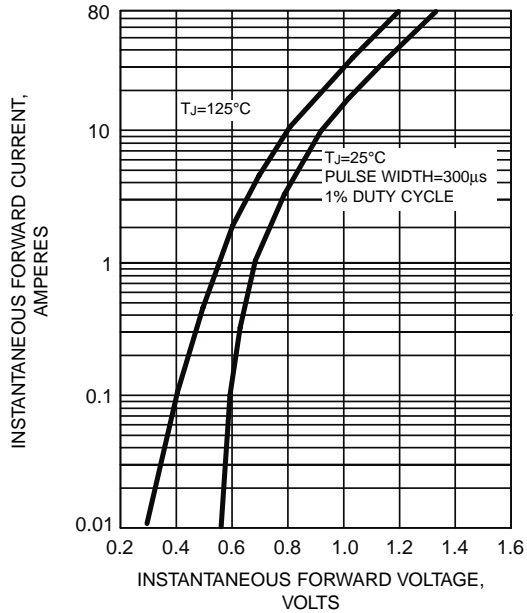
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



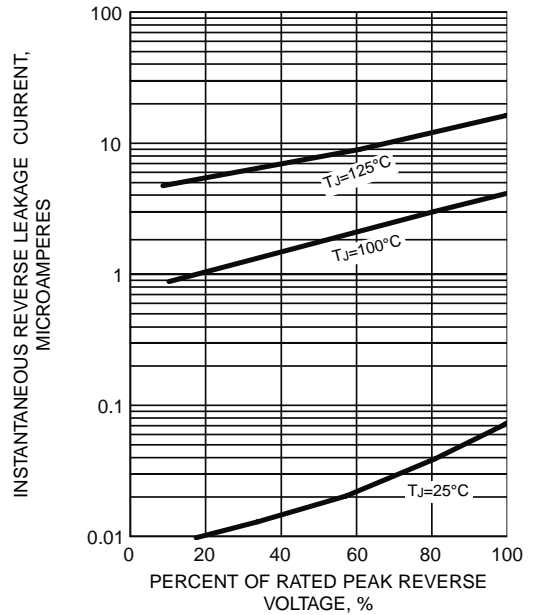
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



**FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG**



**FIG. 3 - TYPICAL REVERSE CHARACTERISTICS PER LEG**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG**

