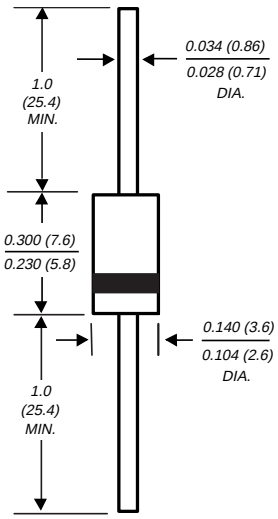
GI810 THRU GI818

GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

***Reverse Voltage** - 50 to 1000 Volts* ***Forward Current** - 1.0 Ampere*

PATENTED*

DO-204AC



Dimensions in inches and (millimeters)

** Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 and brazed-lead assembly by Patent No. 3,930,306*

SUPERECTIFIER®

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature metallurgically bonded construction
- Glass passivated cavity-free junction
- Capable of meeting environmental standards of MIL-S-19500
- Fast switching for high efficiency
- 1.0 Ampere operation at T_A=75°C with no thermal runaway
- Typical I_R less than 0.1µA
- High temperature soldering guaranteed: 350°C/10 seconds 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

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 ounce, 0.4 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	*GI 810*	*GI 811*	*GI 812*	*GI 814*	*GI 816*	*GI 817*	*GI 818*	*UNITS*
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A=75°C	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T_A=75°C	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.2							Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25°C / T_A=100°C	I_R	10.0 / 100.0							µA
Maximum reverse recovery time (NOTE 1)	t_{rr}	750.0							ns
Typical junction capacitance (NOTE 2)	C_J	25.0							pF
Typical thermal resistance (NOTE 3)	$R_{\Theta JA}$	45.0							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175							°C

NOTES:
(1) Reverse recovery test conditions: I_F=1.0A, V_R=30V, di/dt=50A/µs
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
(3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

GENERAL SEMICONDUCTOR®

RATINGS AND CHARACTERISTIC CURVES GI810 THRU GI818

FIG. 1 - FORWARD CURRENT DERATING CURVE

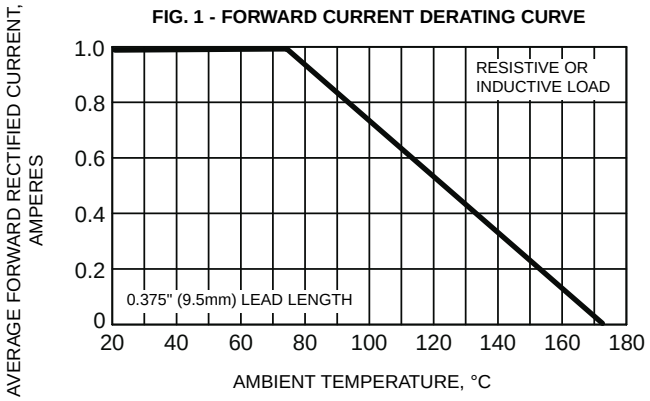


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

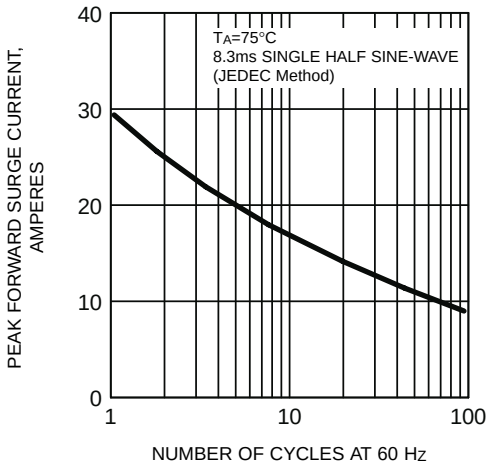


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

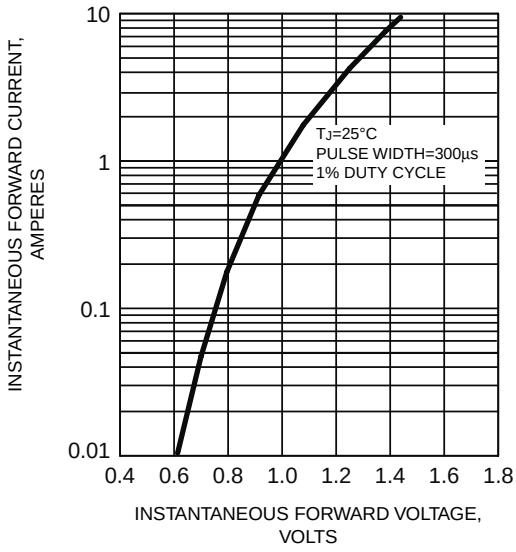


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

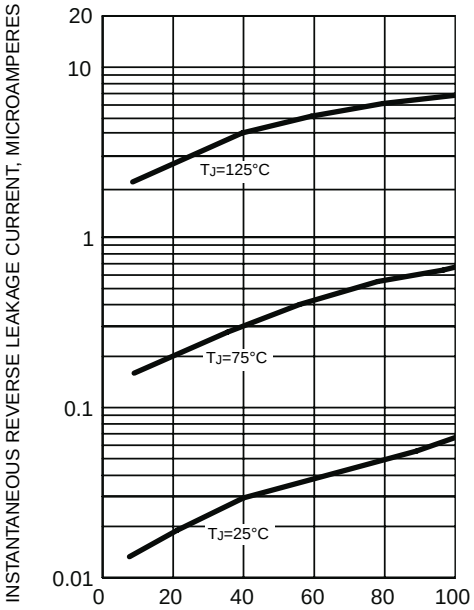


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

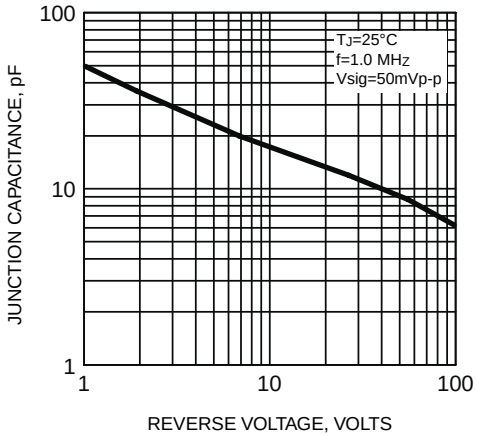
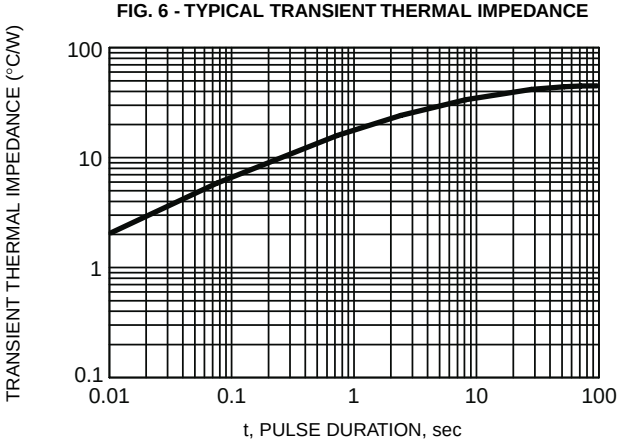


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE



GENERAL SEMICONDUCTOR®

littlediode
COMPONENTS FOR ALL

Littlediode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.