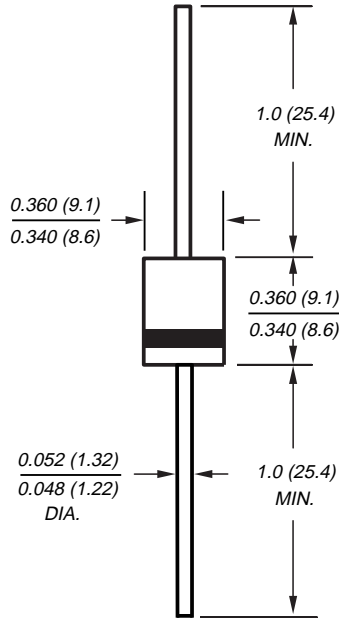




Fast Switching Rectifier

Reverse Voltage 500 to 800 V
Forward Current 5.0 A

Case Style P600



Features

- Plastic package has Underwriters Laboratories 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 oz., 2.1 g
Packaging codes/options:
 1/750 EA. per Bulk Box
 4/800 EA. per 13" Reel (52mm Tape)
 23/300 EA. per Ammo Box (52mm Tape)

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	GI820	GI821	GI822	GI824	GI826	GI828	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	V
Maximum non-repetitive peak reverse voltage	V _{RSM}	75	150	250	450	650	880	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =55°C	I _{F(AV)}	5.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	300						A
Typical thermal resistance ⁽¹⁾	R _{θJA}	10						°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-50 to +150						°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage at 5.0A at 15.7A	T _J =25°C T _J =100°C	V _F	1.10 1.05	V
Maximum DC reverse current at rated DC blocking voltage	T _A =25°C T _A =100°C	I _R	10 1.0	μA
Typical junction capacitance at 4.0V, 1MHz		C _J	300	pF
Maximum reverse recovery time I _F =1.0A, V _R =30V, di/dt=50A/μs, I _{rr} = 10% I _{RM}		t _{rr}	200	ns
Maximum reverse recovery current I _F =1.0A, V _R =30V, di/dt=50A/μs,		I _{RM(REC)}	2.0	ns

Notes:

(1) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curves

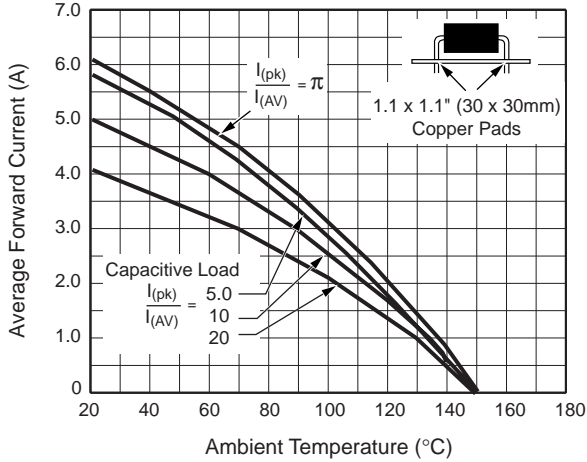


Fig. 2 – Forward Current Derating Curve

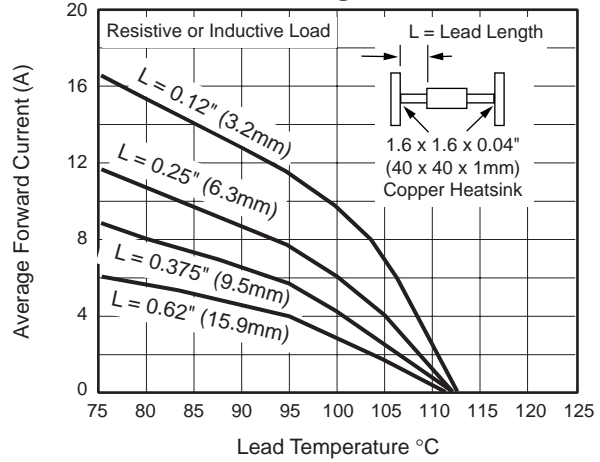


Fig. 3 – Maximum Non-Repetitive Peak Forward Surge Current

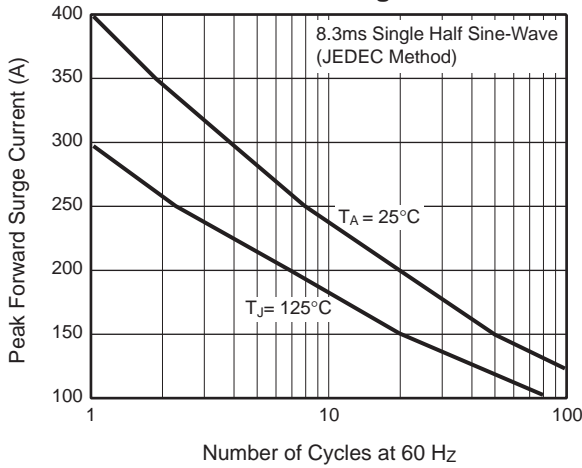


Fig. 4 – Typical Instantaneous Forward Characteristics

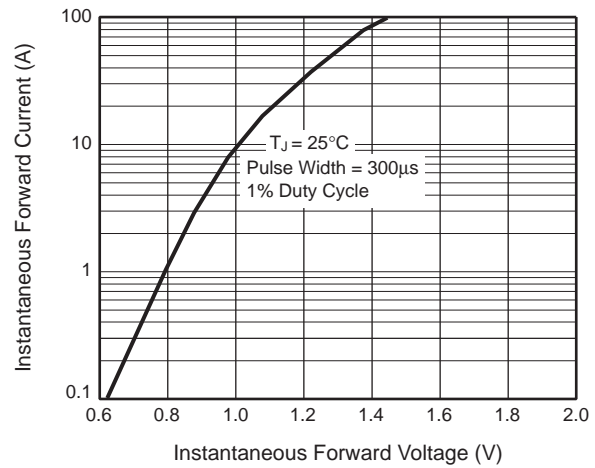


Fig. 5 – Typical Reverse Characteristics

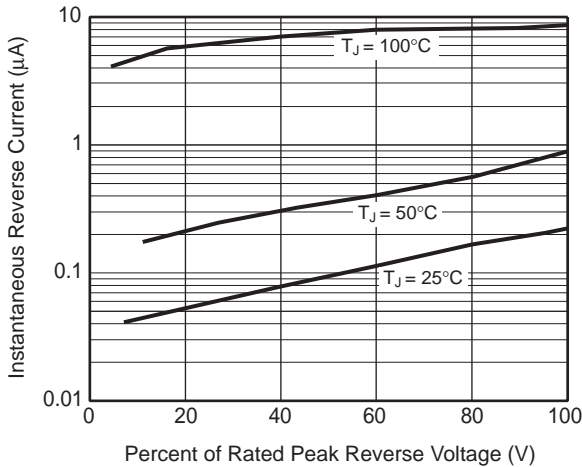


Fig. 6 – Typical Thermal Resistance

