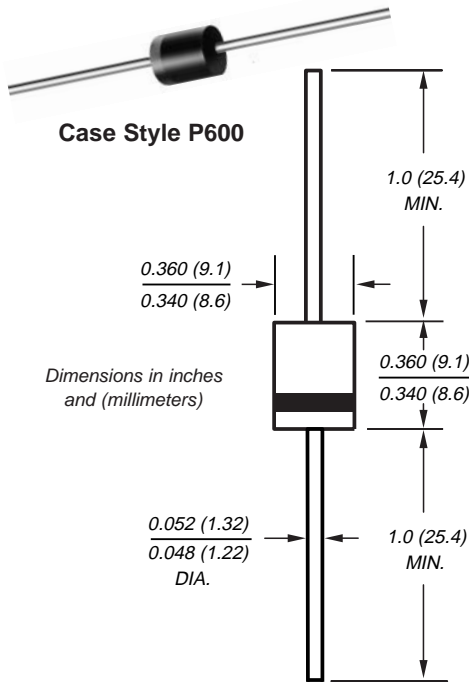


High Current Axial Plastic Rectifiers

Reverse Voltage 50 to 800V
Forward Current 6.0A



Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High forward current capability
- Diffused junction
- Construction utilizes void-free molded plastic technique
- High surge current capability
- 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

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	GI750	GI751	GI752	GI754	GI756	GI758	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}	60	120	240	480	720	1200	V
Maximum average forward rectified current at $T_A = 60^\circ\text{C}$, P.C.B. mounting (fig. 1) $T_L = 60^\circ\text{C}$, 0.125" (3.18mm) lead length (fig. 2)	$I_{F(AV)}$	6.0 22						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400						A
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$	20 4.0						°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.

Parameter	Symbol	GI750	GI751	GI752	GI754	GI756	GI758	Unit	
Maximum instantaneous forward voltage at: 6.0A 100A	V_F	0.90 1.25						0.95 1.30	V
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	I_R	5.0 1.0						μA mA	
Typical reverse recovery time at $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$	t_{rr}	2.5						μs	
Typical junction capacitance at 4.0V, 1MHz	C_J	150						pF	

Note:(1) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted with 1.1" x 1.1" (30 x 30mm) copper pads

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

Fig. 1 – Maximum Forward Current Derating Curve

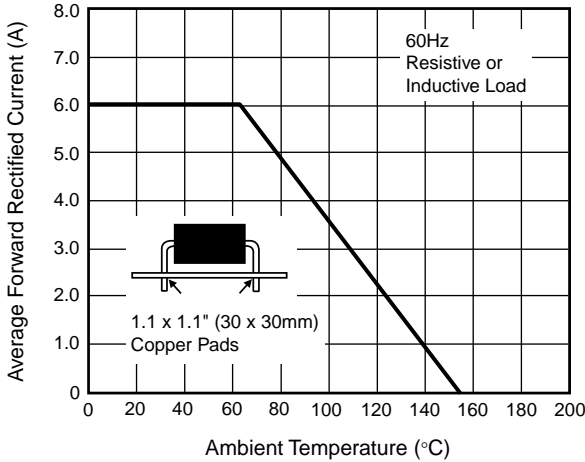


Fig. 2 – Maximum Forward Current Derating Curve

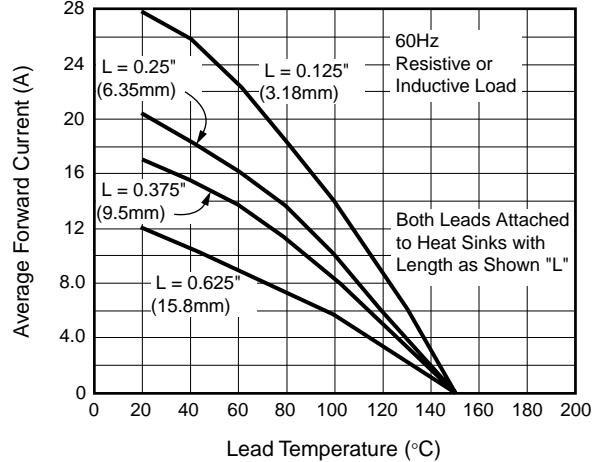


Fig. 3 – Maximum Peak Forward Surge Current

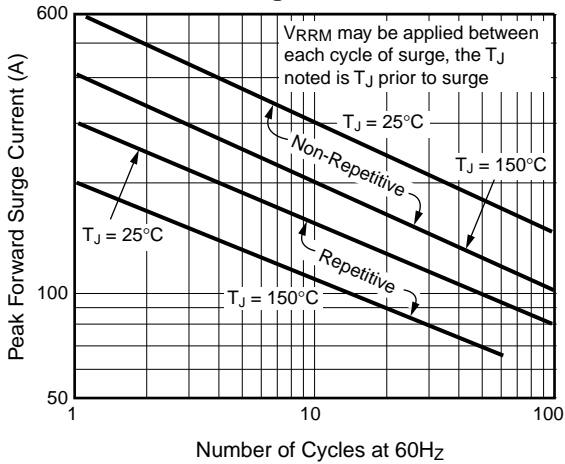


Fig. 4 – Typical Instantaneous Forward Characteristics

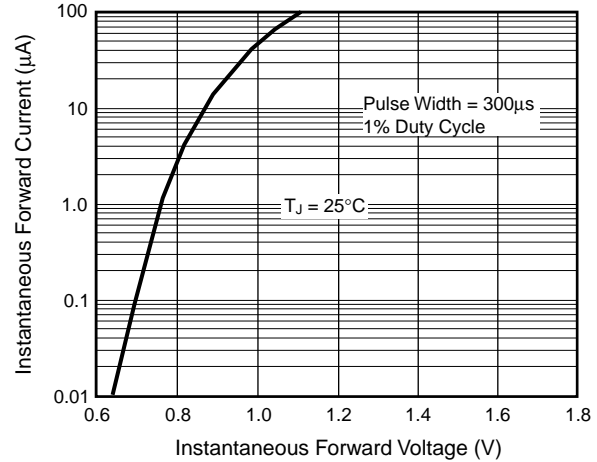


Fig. 5 – Typical Reverse Characteristics

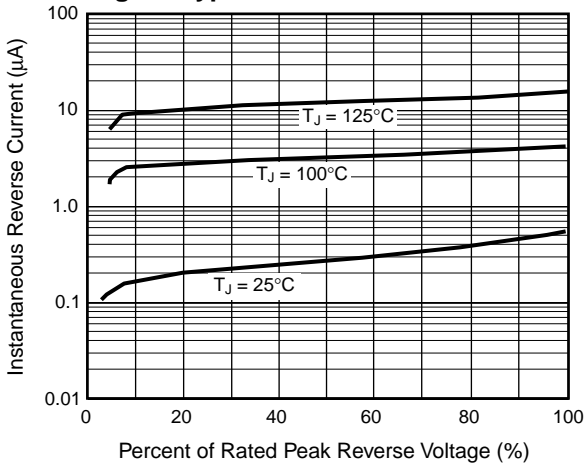


Fig. 6 – Typical Transient Thermal Impedance

