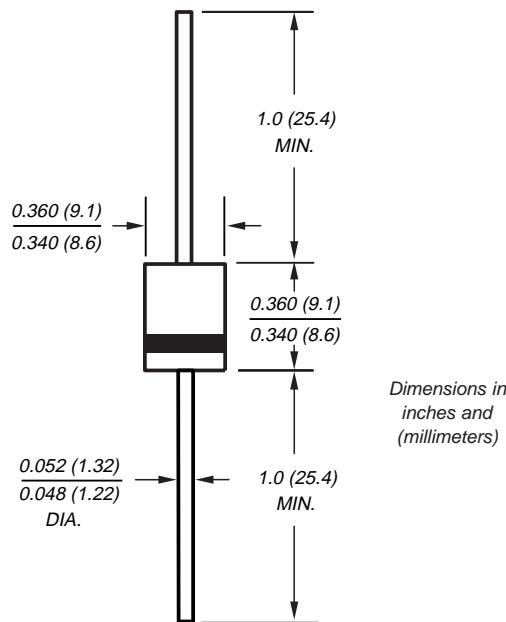



Case Style P600

 Reverse Voltage 50 to 1000V
 Forward Current 6.0A

Features

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

Mechanical Data

Case: Void-free molded plastic body

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

 High temperature soldering guaranteed:
 250°C/10 seconds, 0.375" (9.5mm) lead length,
 5 lbs. (2.3kg) tension

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	P600A	P600B	P600D	P600G	P600J	P600K	P600M	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T _A =60°C, 0.375" (9.5mm) lead length (Fig. 1) T _L =60°C, 0.125" (3.18mm) lead length (Fig. 2)	I _{F(AV)}				6.0				A
					22				
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 _{θJA} R _{θJL}				20				°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: 6.0A 100A	V _F	0.90 1.30	1.0 1.4	V
Maximum DC reverse current T _A = 25°C at rated DC blocking voltage T _A =100°C	I _R	5.0 1.0		μA mA
Typical reverse recovery time at I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	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

P600A thru P600M



Vishay Semiconductors
formerly General Semiconductor

Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 — Maximum Forward Current Derating Current

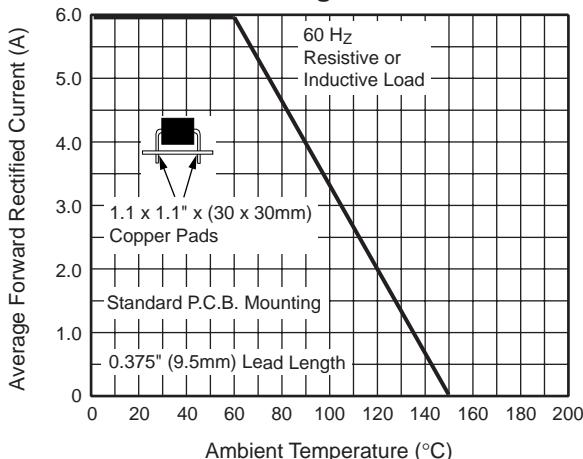


Fig. 2 — Maximum Forward Current Derating Curve

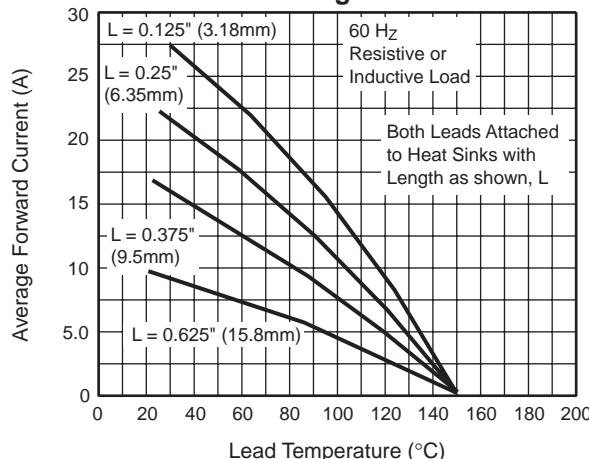


Fig. 3 — Typical Instantaneous Forward Characteristics

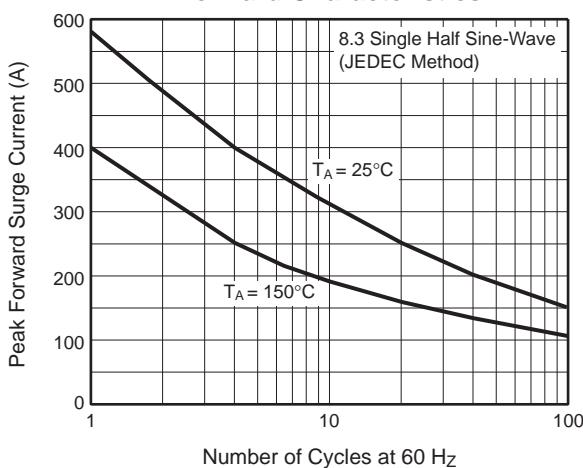


Fig. 4 — Typical Instantaneous Forward Characteristics

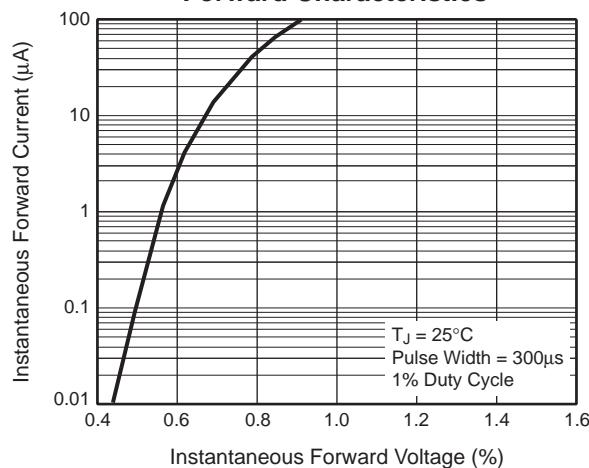


Fig. 5 — Typical Reverse Characteristics

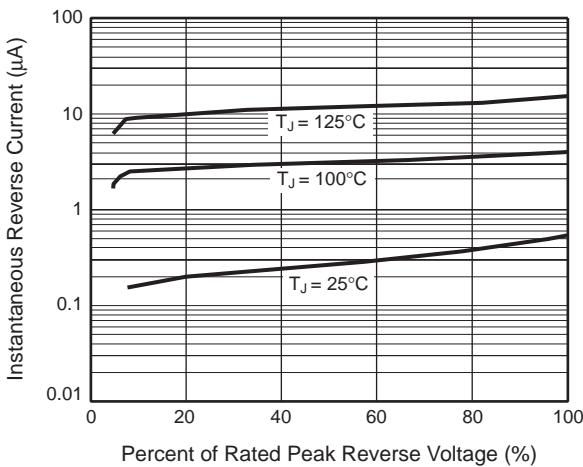


Fig. 6 — Typical Transient Thermal Impedance

