

Silicon Diode

P600K

800V / 6A

DATASHEET

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OEM – General Semiconductor

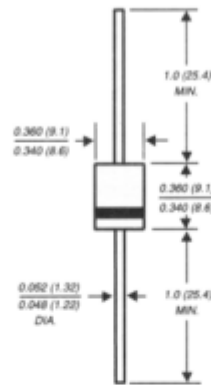
Source: General Semiconductor Databook 1998

P600A THRU P600M

GENERAL PURPOSE PLASTIC RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 6.0 Amperes

Case Style P600



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High forward current capability
- ◆ 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 ounce, 2.1 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	P600A	P600B	P600D	P600G	P600J	P600K	P600M	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 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 _(AV)	6.0 22.0						Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	400.0						Amps	
Maximum instantaneous forward voltage at: 6.0A 100A	V _F	0.90 1.30						1.0 1.4	Volts
Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =100°C	I _R	5.0 1.0						µA mA	
Typical junction capacitance (NOTE 1)	C _J	150.0						pF	
Typical reverse recovery time (NOTE 2)	t _{rr}	2.5						µS	
Typical thermal resistance (NOTE 3)	R _{θJA} R _{θJL}	20.0 4.0						°C/W	
Operating junction and storage temperature range	T _J , T _{STG}	-50 to +150						°C	

NOTES:

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (2) Reverse recovery time conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
- (3) 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 P600A THRU P600M

