

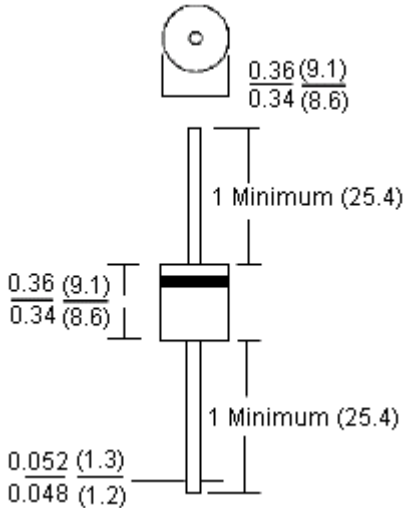
6A Power Diodes

P600 Series

Standard Axial Rectifiers



P600



Dimensions : Inches (Millimetres)

Mechanical Data

Case	: Moulded plastic, P600
Terminals	: Axial leads, solderable per MIL-STD-202, Method 208
Polarity	: Colour band denotes cathode
Mounting Position	: Any
Weight	: 2.1 g

Features:

- High surge current capability
- Void-free plastic in a P600 package
- High current operation 6 Amperes at $T_A = 55^\circ\text{C}$
- Exceeds environmental standards of MIL-S-19500/228

Maximum Ratings and Electrical Characteristics

At $T_A = 25^\circ\text{C}$ unless otherwise specified. Single phase, half-wave, 60 Hz, resistive or inductive load
All values except maximum RMS voltage are registered JEDEC parameters

	P600A	P600D	P600G	P600K	P600M	Units
Maximum Recurrent Peak Reverse Voltage	50	200	400	800	1,000	V
Maximum RMS Voltage	35	140	280	560	700	
Maximum dc Blocking Voltage	50	200	400	800	1,000	
Maximum Average Forward Rectified Current $T_A = 55^\circ\text{C}$	6					A
Maximum Overload Surge Current at 1 Cycle (Note 1)	400					
Maximum Forward Voltage at 6 A dc	1					V
Maximum dc Reverse Current at $T_A = 25^\circ\text{C}$	10					μA
Rated dc Blocking Voltage at $T_A = 100^\circ\text{C}$	1					mA dc
Typical Junction Capacitance (Note 3) C_J	150					pF
Typical Thermal Resistance (Note 2) $R_{\theta JA}$	20					$^\circ\text{C} / \text{W}$
Typical Thermal Resistance (Note 2) $R_{\theta JL}$	4					
Operating Temperature Range	-55 to 150					$^\circ\text{C}$
Storage Temperature Range						

Notes

1. Peak forward surge current, per 8.3 ms single half-sine-wave superimposed on rated load (JEDEC method)
2. Thermal resistance from junction to ambient and from junction to lead at 0.375 inches (9.5 mm) lead length PCB mounted with 1.1 x 1.1 inches (30 x 30 mm) copper pads
3. Measured at 1 MHz and applied reverse voltage of 4 volts

6A Power Diodes

P600 Series



Rating and Characteristic Curves

Fig. 1-Typical Reverse Characteristics

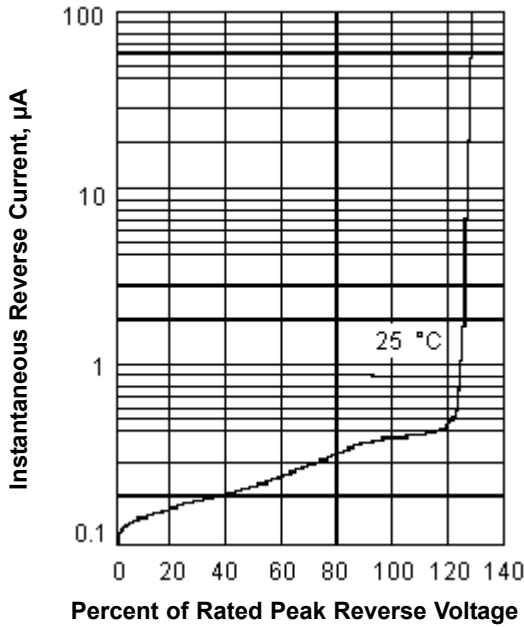


Fig. 2-Forward Derating Curve

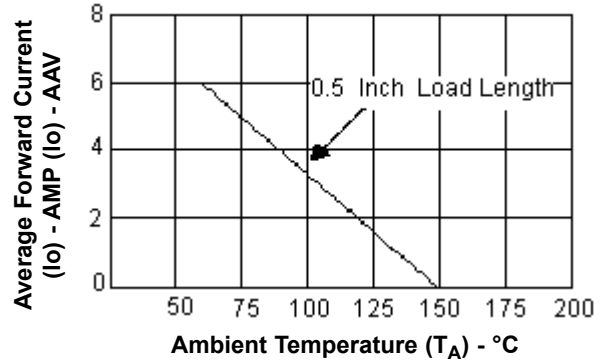


Fig. 3-Typical Transient Thermal Impedance

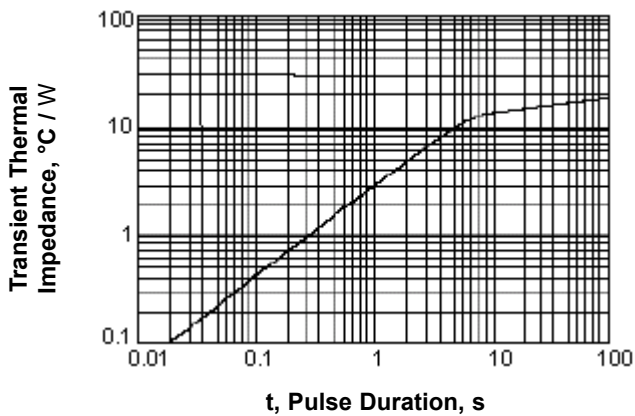


Fig. 4-Typical Instantaneous Forward Characteristics

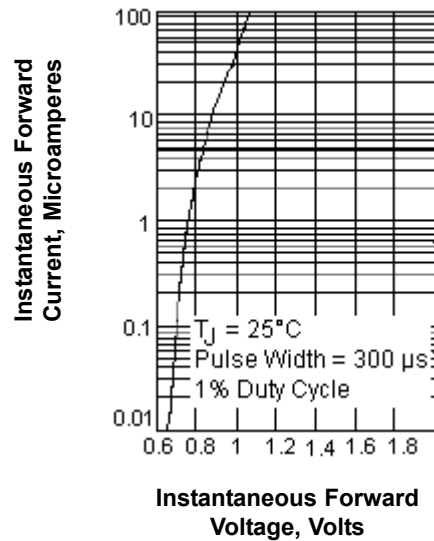
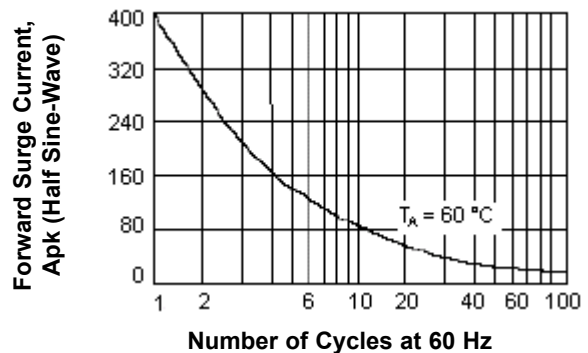


Fig. 5-Maximum Overload Surge Current



6A Power Diodes



P600 Series

Specification Table

V_{RRM} Maximum (V)	I_f Average (A)	I_{fsm} (A)	Plastic Package	Part Number
1,000	6	400	P600	P600M
400				P600G
800				P600K
50				P600A
200				P600D

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.