

# P600A – P600M

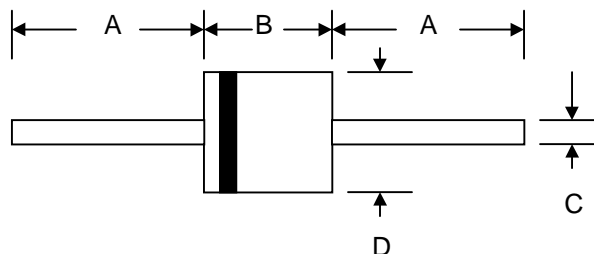
## 6.0A SILICON RECTIFIER

### Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability

### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 2.1 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- Epoxy: UL 94V-O rate flame retardant



P-600		
Dim	Min	Max
A	25.4	—
B	8.60	9.10
C	1.20	1.30
D	8.60	9.10
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

Characteristic	Symbol	P600A	P600B	P600D	P600G	P600J	P600K	P600M	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V <sub>RWM</sub>								
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T <sub>A</sub> = 60°C	I <sub>O</sub>	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400							A
Forward Voltage @I <sub>F</sub> = 6.0A	V <sub>FM</sub>	1.0							V
Peak Reverse Current @T <sub>A</sub> = 25°C	I <sub>RM</sub>	5.0							μA
At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C		1.0							mA
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	150							pF
Typical Thermal Resistance Junction to Ambient (Note 1)	R <sub>θJA</sub>	20							K/W
Operating Temperature Range	T <sub>j</sub>	-50 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-50 to +150							°C

**\*Glass passivated forms are available upon request**

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

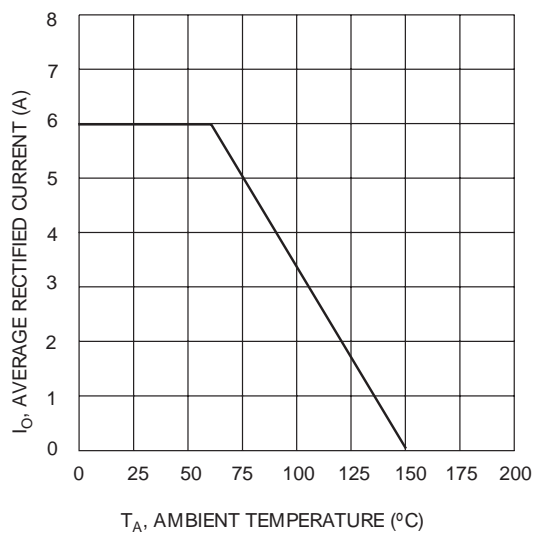


Fig. 1 Forward Current Derating Curve

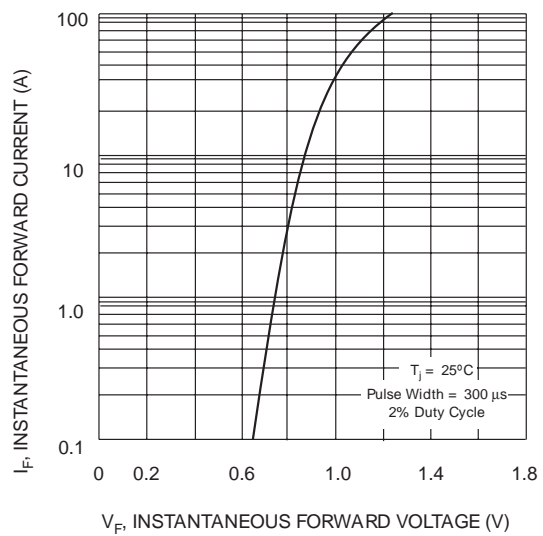


Fig. 2, Typical Forward Characteristics

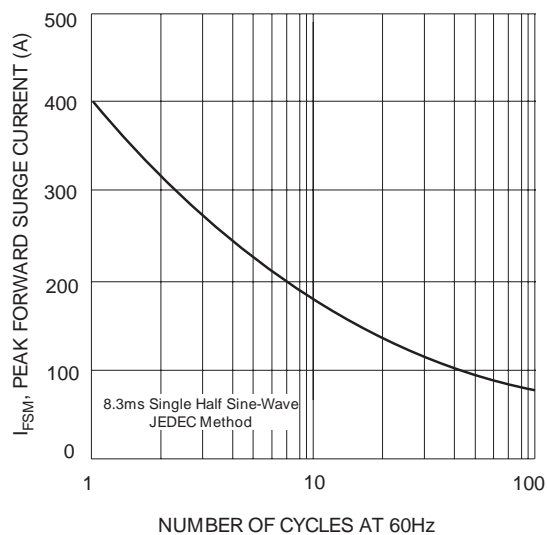


Fig. 3 Maximum Non-Repetitive Peak Forward Surge Current

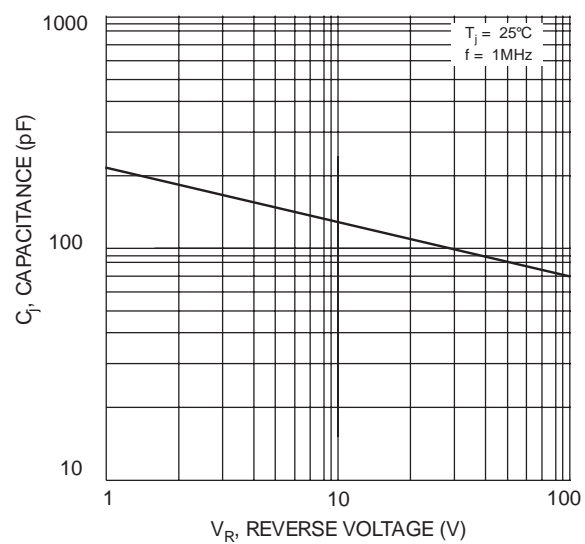


Fig. 4 Typical Junction Capacitance

## ORDERING INFORMATION

Product No.♦	Package Type	Shipping Quantity
<b>P600A-T3</b>	P-600	800/Tape & Reel
P600A	P-600	250 Units/Box
<b>P600B-T3</b>	P-600	800/Tape & Reel
P600B	P-600	250 Units/Box
<b>P600D-T3</b>	P-600	800/Tape & Reel
P600D	P-600	250 Units/Box
<b>P600G-T3</b>	P-600	800/Tape & Reel
P600G	P-600	250 Units/Box
<b>P600J-T3</b>	P-600	800/Tape & Reel
P600J	P-600	250 Units/Box
<b>P600K-T3</b>	P-600	800/Tape & Reel
P600K	P-600	250 Units/Box
<b>P600M-T3</b>	P-600	800/Tape & Reel
P600M	P-600	250 Units/Box

Products listed in **bold** are WTE **Preferred** devices.

♦T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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