



Schottky Power Rectifier

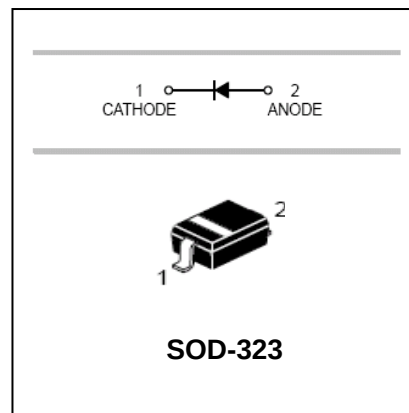
MBR160S

FEATURES

- Low Reverse Current.
- Low Power Loss/High Efficiency.
- Low Stored Charge, Majority Carrier Conduction.
- Highly Stable Oxide Passivated Junction.



Lead-free



ORDERING INFORMATION

Type No.	Marking	Package Code
MBR160S	X6	SOD-323

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	42	V
Average Rectified Forward Current ($V_{R(equiv)} \leq 0.2V_R$, $T_L = 90^\circ\text{C}$, $R_{\theta JA} = 80^\circ\text{C/W}$, $T_A = 55^\circ\text{C}$)	I_O	1.0	A
Non-Repetitive Peak Surge Current (Surge applied at rate load current, halfwave, single phase, 60 Hz)	I_{FSM}	25	A
Storage Temperature	T_{stg}	-65 to +150	°C
Operating Junction Temperature (Forward Current Applied)	T_j	150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

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Characteristic	Symbol	Test Condition	Min	Max	Unit
Maximum Instantaneous Forward Voltage	V_F	$I_F=0.1A$ $I_F=1.0A$ $I_F=3.0A$		0.55 0.75 1.00	V
Maximum Instantaneous Reverse Current (Note 1)	I_R	$V_R=60V, T_L=25^{\circ}C$ $V_R=60V, T_L=100^{\circ}C$		0.5 5.0	mA

NOTE: Pulse Test: Pulse Width = 300 μ s, Duty Cycle $\leq$ 2%.

TYPICAL CHARACTERISTICS @ $T_a=25^{\circ}C$ unless otherwise specified

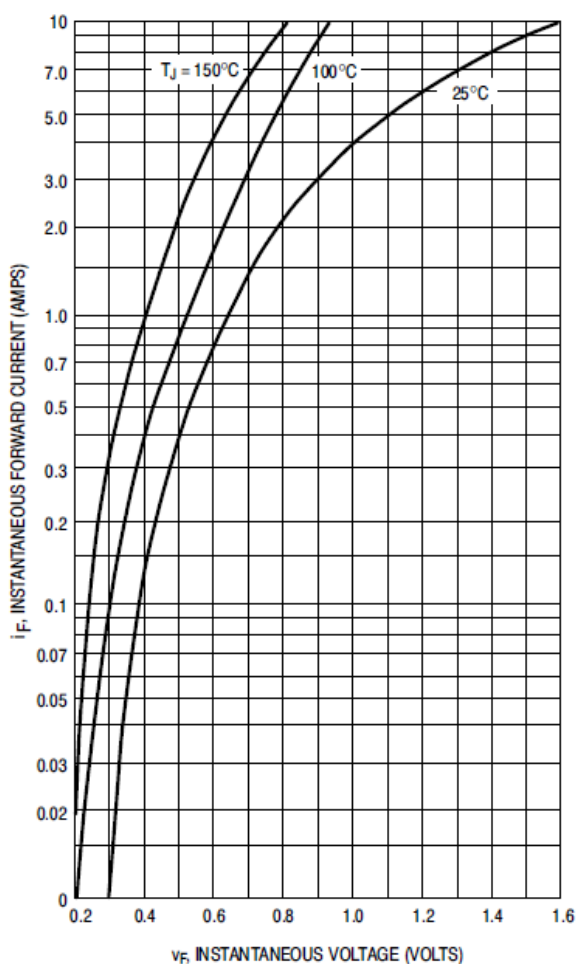


Figure 1. Typical Forward Voltage

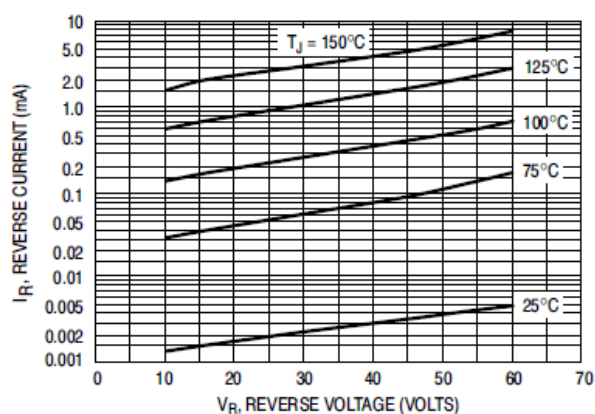


Figure 2. Typical Reverse Current*

*The curves shown are typical for the highest voltage device in the voltage grouping. Typical reverse current for lower voltage selections can be estimated from these same curves if V_R is sufficiently below rated V_R .

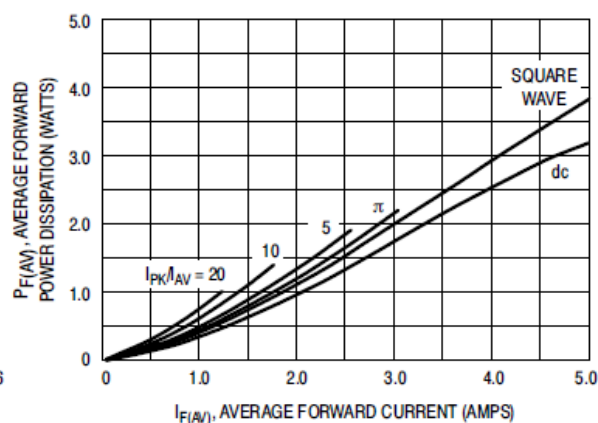


Figure 3. Forward Power Dissipation

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THERMAL CHARACTERISTICS

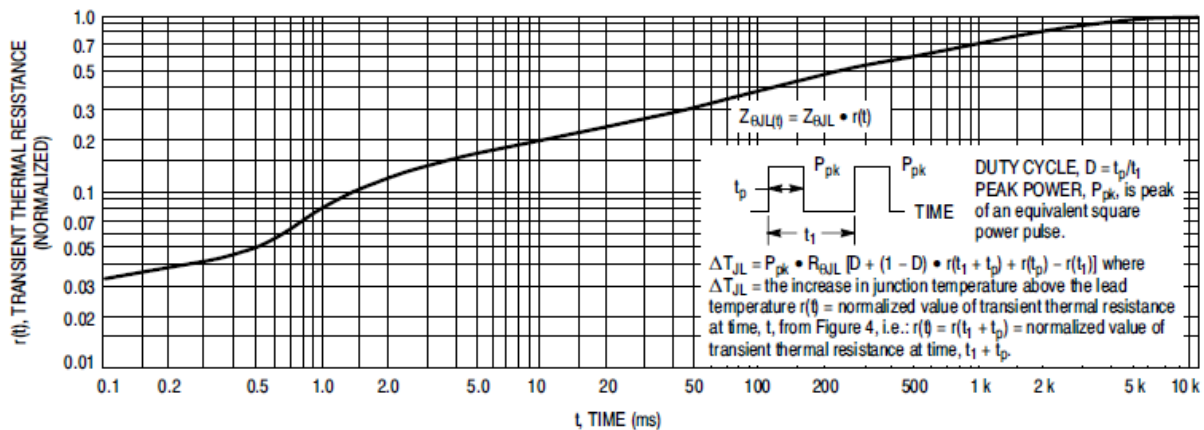
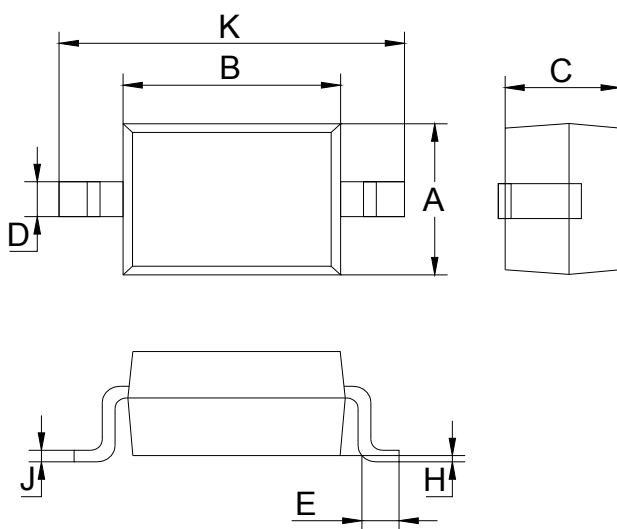


Figure 4. Thermal Response

PACKAGE OUTLINE

Plastic surface mounted package

SOD-323



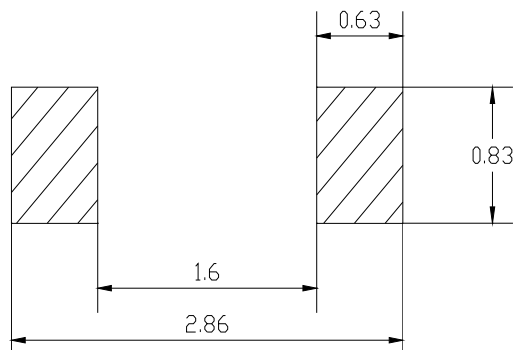
SOD-323		
Dim	Min	Max
A	1.275	1.325
B	1.675	1.725
C	0.9 Typical	
D	0.30 Typical	
E	0.27	0.37
H	0.02	0.1
J	0.1 Typical	
K	2.6	2.7
All Dimensions in mm		



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SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MBR160S	SOD-323	3000/Tape&Reel