

Schottky Power Rectifier

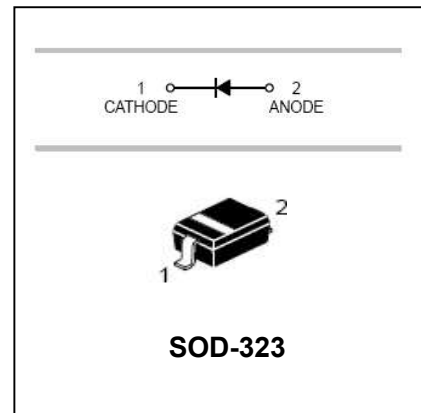
MBR160S

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

□: none is for Lead Free package;

“G” is for Halogen Free package.

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	60	V
Working Peak Reverse Voltage	V_{RWM}		
DC Reverse Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	42	V
Average Rectified Forward Current ($V_{R(equiv)} \leq 0.2V_R, T_L = 90^\circ C, R_{\theta JA} = 80^\circ C/W, T_A = 55^\circ C$)	I_o	1.0	A
Non-Repertitive Peak Surge Current (Surge applied at rate load current, halfwave, single phase, 60 Hz)	I_{FSM}	20	A
Storage Temperature	T_{stg}	-65 to +125	°C
Operating Junction Temperature(Forward Current Applied)	T_j	125	°C

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Test Condition	Min	Max	Unit
Maximum Instantaneous Forward Voltage	V_F	$I_F=0.1A$		0.55	V
		$I_F=1.0A$		0.75	
		$I_F=3.0A$		1.00	
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 =300μs, Duty Cycle ≤ 2%.

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

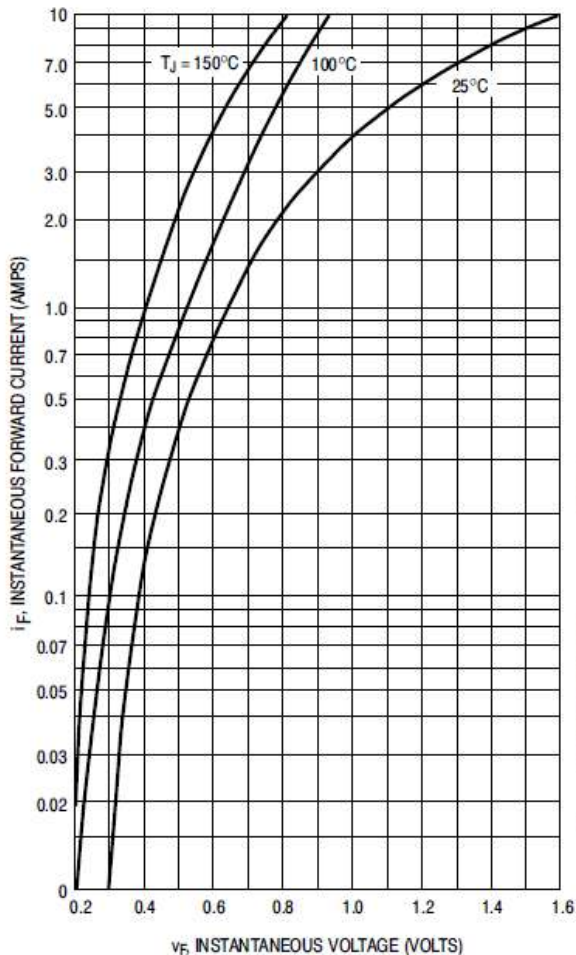


Figure 1. Typical Forward Voltage

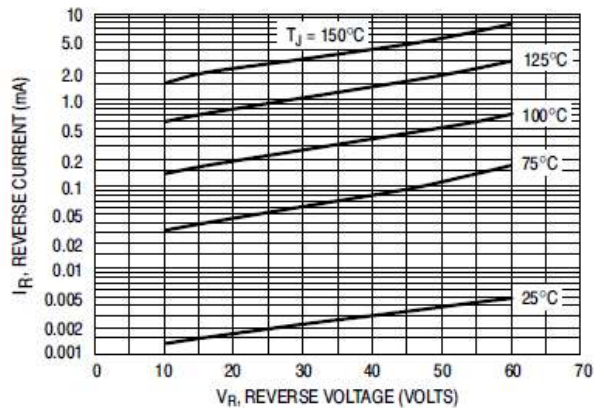


Figure 2. Typical Reverse Current*

*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 .

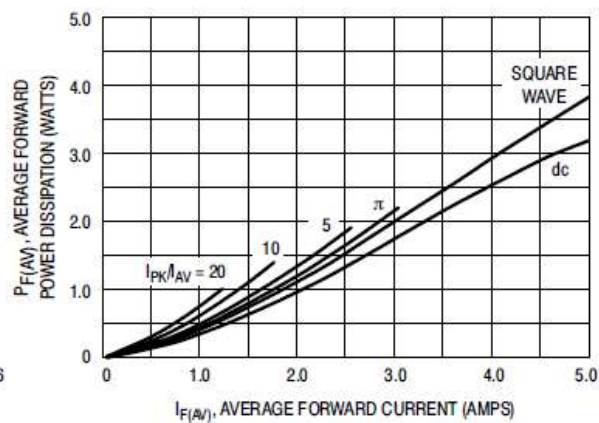


Figure 3. Forward Power Dissipation

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THERMAL CHARACTERISTICS

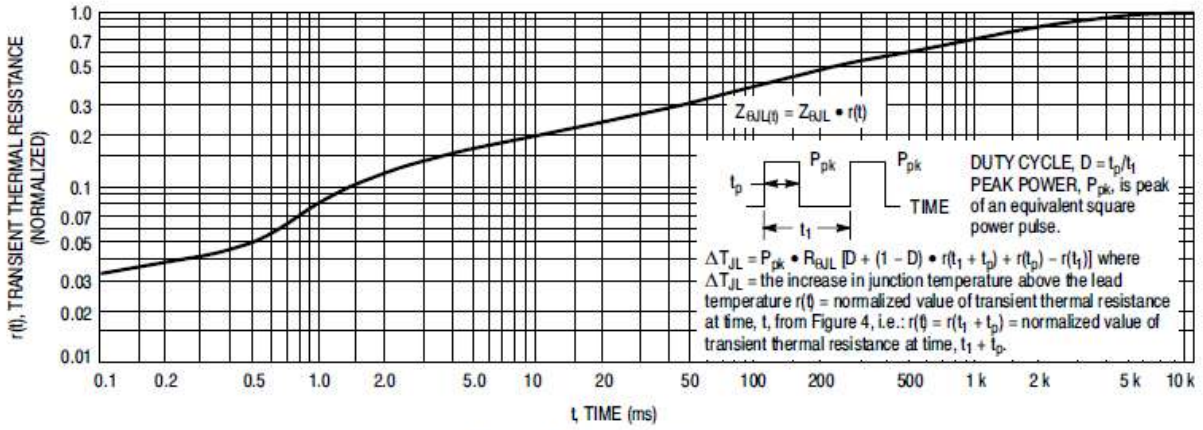


Figure 4. Thermal Response

PACKAGE OUTLINE

Plastic surface mounted package

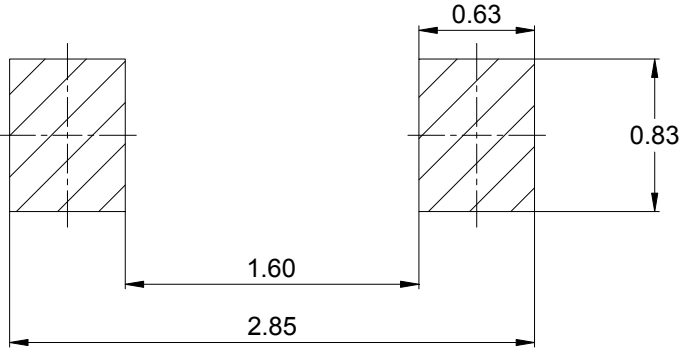
SOD-323

SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75
All Dimensions in mm		

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SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

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