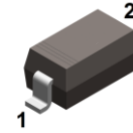
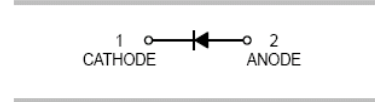




FEATURES

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



SOD-123

ORDERING INFORMATION

Type No.	Marking	Package Code
MBR160	X6	SOD-123

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Rating	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-Repetitive Peak Surge Current (Surge applied at rate load current, halfwave, single phase, 60 Hz)	I_{FSM}	20	A
Storage Temperature	T_{stg}	-65 to +150	°C
Operating Junction Temperature (Forward Current Applied)	T_j	-55 to +125	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

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

NOTE: Pulse Test: Pulse Width =300 μs, Duty Cycle ≤ 2%.



TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

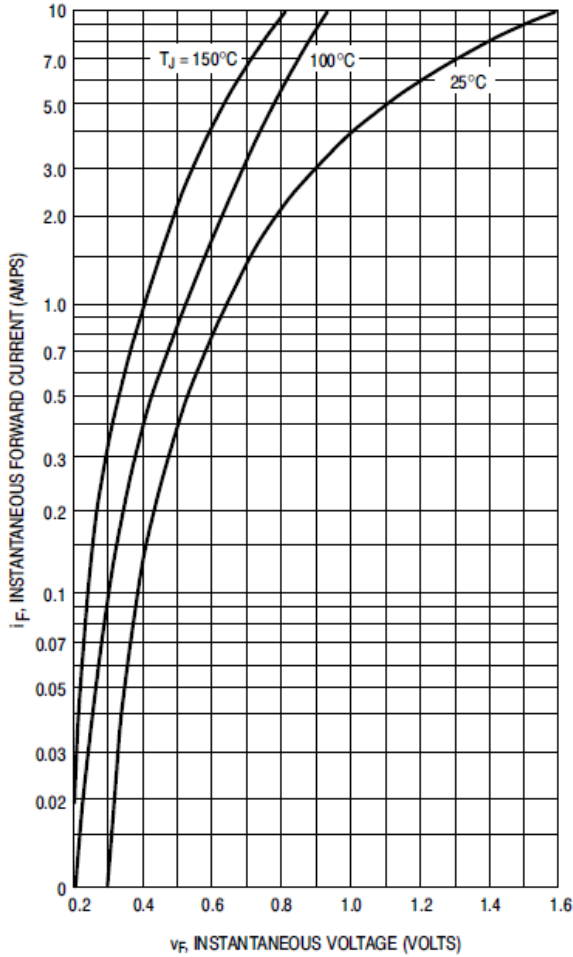


Figure 1. Typical Forward Voltage

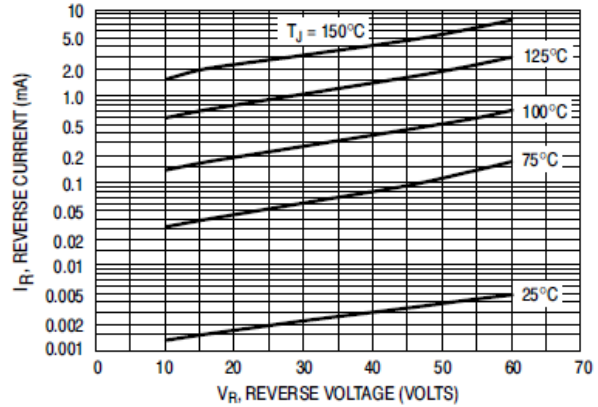


Figure 2. Typical Reverse Current*

*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 .

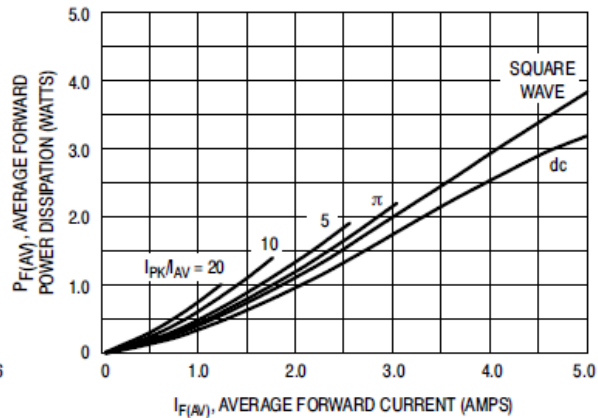


Figure 3. Forward Power Dissipation

THERMAL CHARACTERISTICS

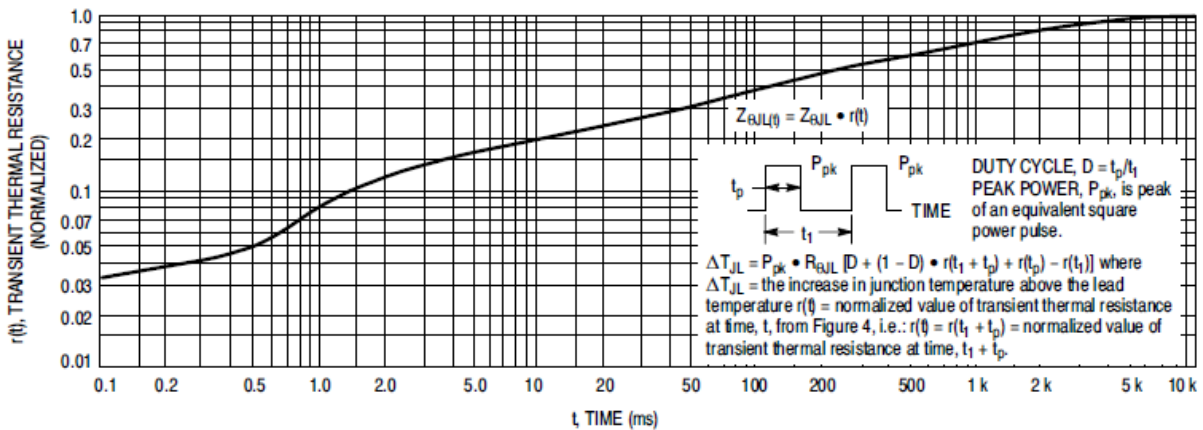


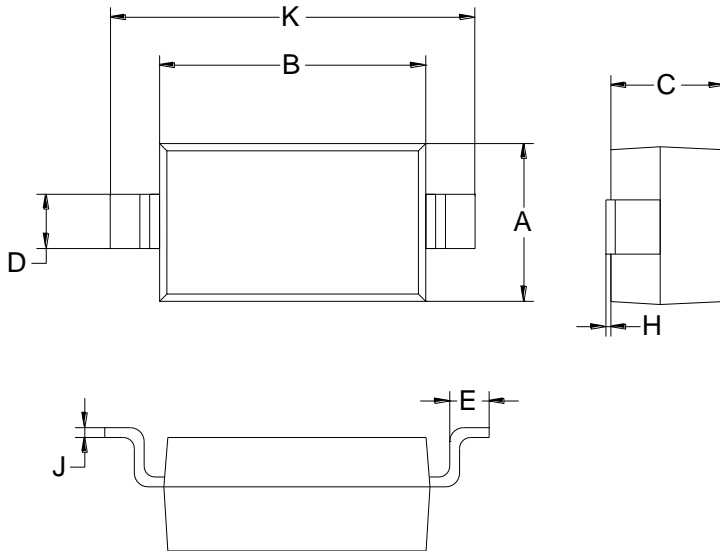
Figure 4. Thermal Response



PACKAGE OUTLINE

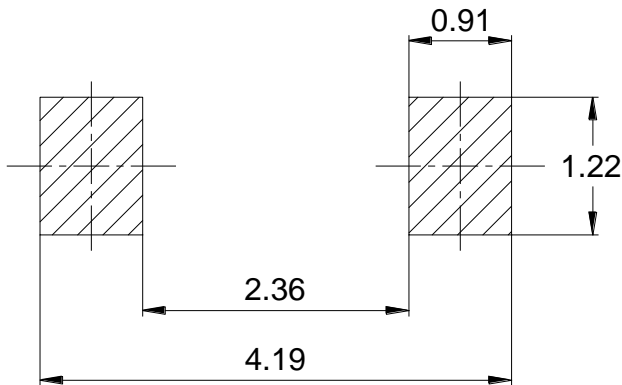
Plastic surface mounted package

SOD-123



SOD-123		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
MBR160	SOD-123	3000 pcs / Tape & Reel