

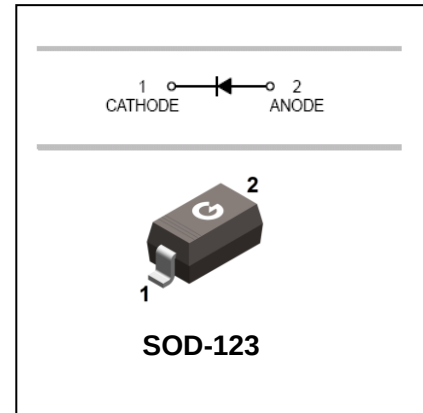
Schottky Power Rectifier

MBR160

FEATURES

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

HF



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 ($V_{R(equiv)} \leq 0.2V_R, T_L = 90^\circ\text{C}, R_{\theta JA} = 80^\circ\text{C/W}, T_A = 55^\circ\text{C}$)	I_O	1.0	A
Non-Repetitive Peak Surge Current (Surge applied at rate load current, halfwave, single phase, 60 Hz)	I_{FSM}	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	$I_F = 0.1\text{ A}$ $I_F = 1.0\text{ A}$ $I_F = 3.0\text{ A}$		0.55 0.75 1.00	V
Maximum Instantaneous Reverse Current(Note 1)	I_R	$V_R = 60\text{ V}, T_L = 25^\circ\text{C}$ $V_R = 60\text{ V}, T_L = 100^\circ\text{C}$		0.5 5.0	mA

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

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

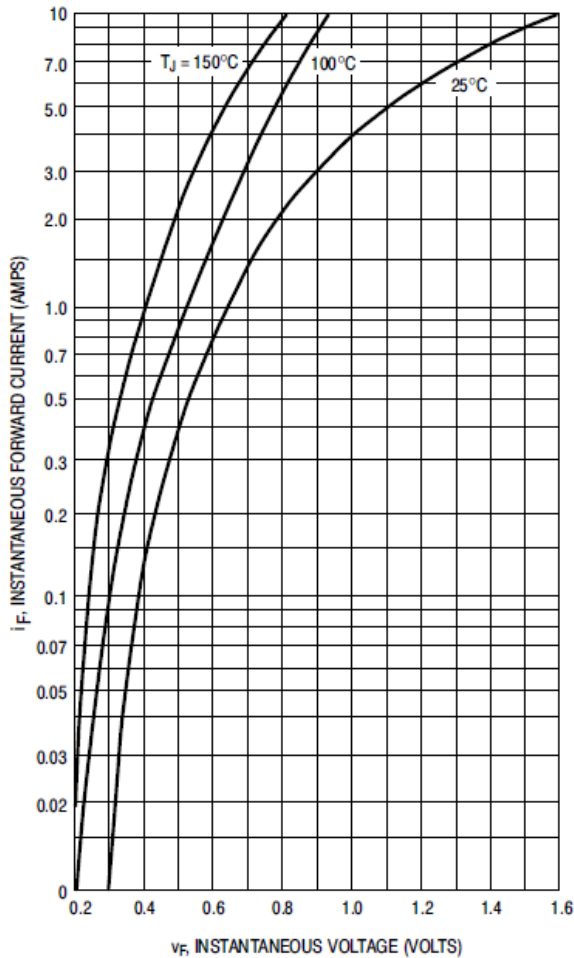


Figure 1. Typical Forward Voltage

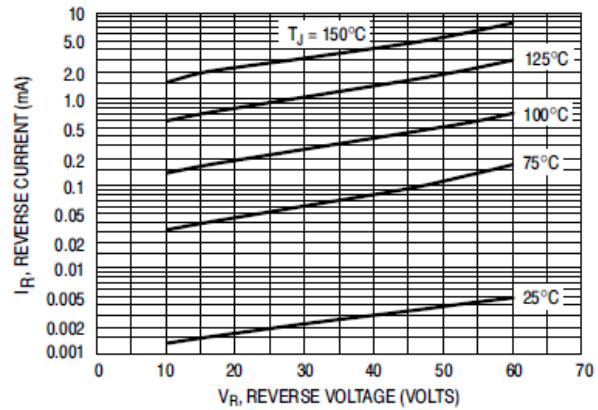


Figure 2. Typical Reverse Current*

*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 .

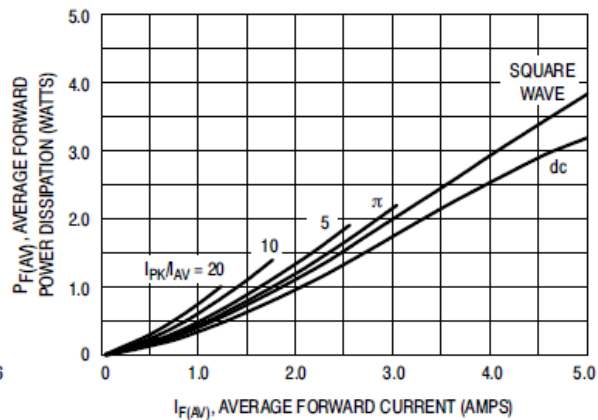


Figure 3. Forward Power Dissipation

THERMAL CHARACTERISTICS

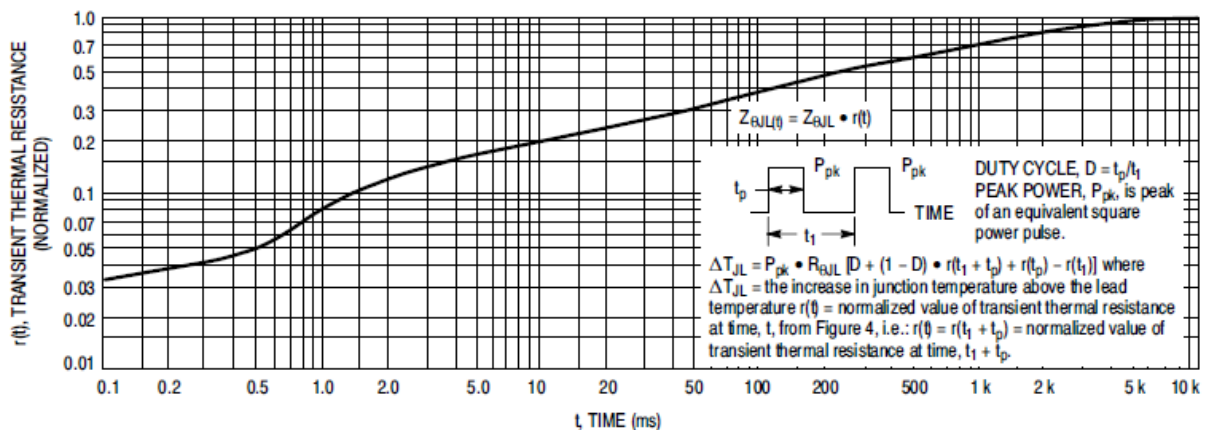


Figure 4. Thermal Response

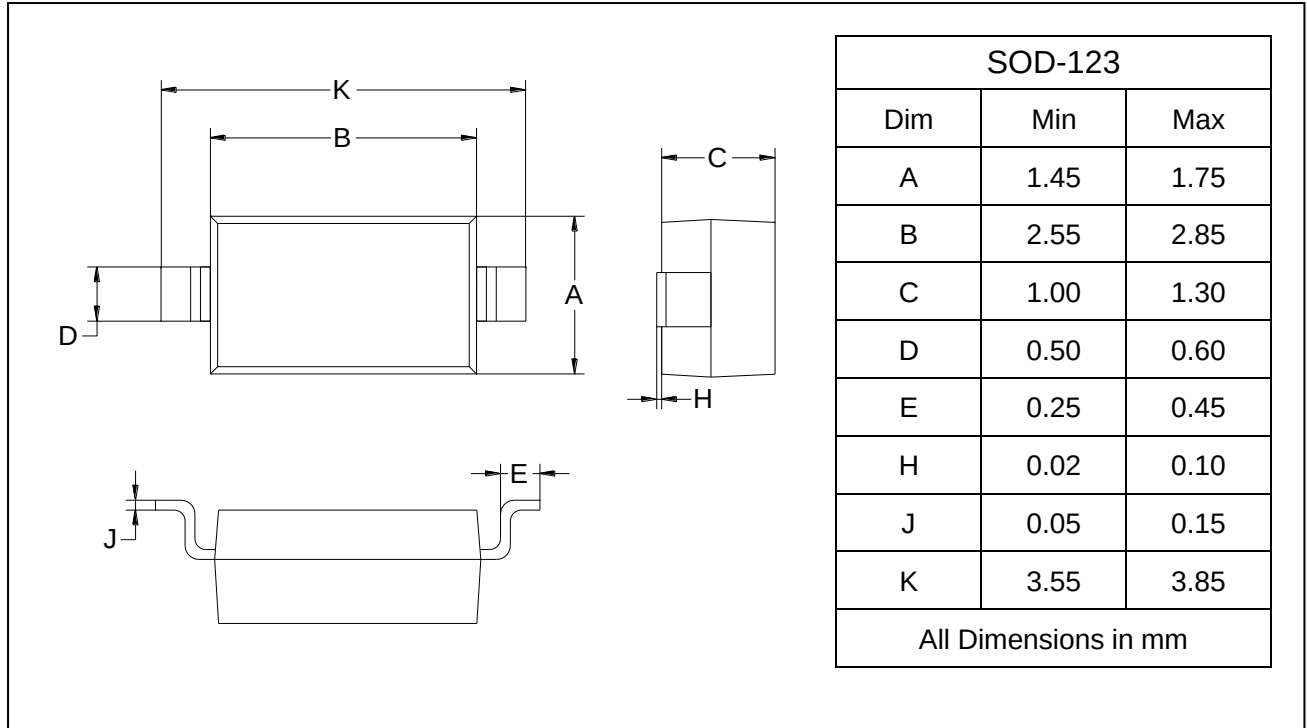
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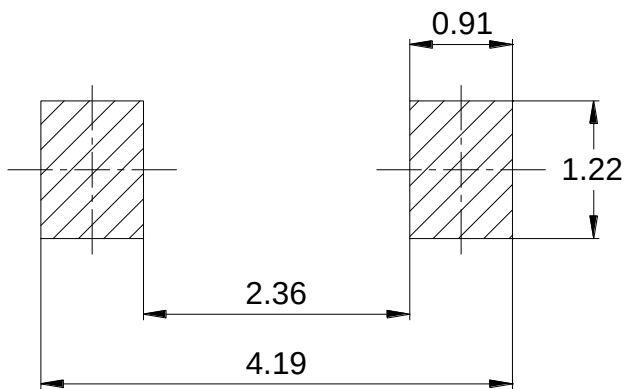
PACKAGE OUTLINE

Plastic surface mounted package

SOD-123



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

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