MBR130W

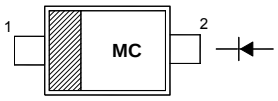
Surface Mount Schottky Barrier Diode

Features

- Low Forward Voltage
- Package Designed for Optimal Automated Board Assembly

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: "MC"
Simplified outline SOD-123 and symbol

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}	30	V
DC Blocking Voltage	V_R	30	V
Average Rectified Forward Current (Rated V_R) T_L = 65 °C	$I_{F(AV)}$	1	A
Non-Repetitive Peak Forward Surge Current (Surge Applied at Rated Load Conditions, Halfware, Single Phase, 60 Hz)	I_{FSM}	5.5	A
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	230 [1)]	°C/W
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	108 [1)]	°C/W
Operating Junction Temperature	T_j	- 65 to + 125	°C
Storage Temperature Range	T_{stg}	- 65 to + 125	°C

[1)] FR-4 or FR-5 = 3.5 X 1.5 inches using a 1 inch Cu pad.

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at I_F = 0.1 A at I_F = 0.7 A	V_F	 - -	 0.35 0.5	V
Reverse Breakdown Voltage at I_R = 1 mA	$V_{(BR)R}$	30	-	V
Reverse Current at V_R = 30 V at V_R = 5 V	I_R	 - -	 200 50	µA

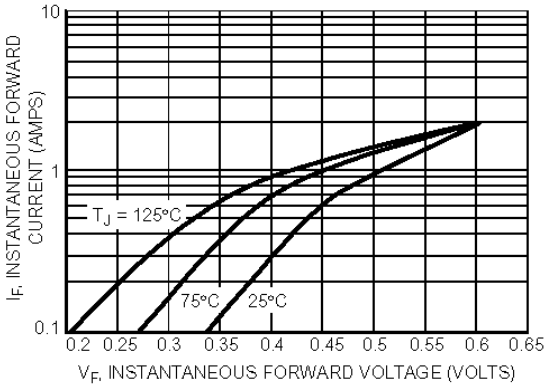


Figure 1. Maximum Forward Voltage

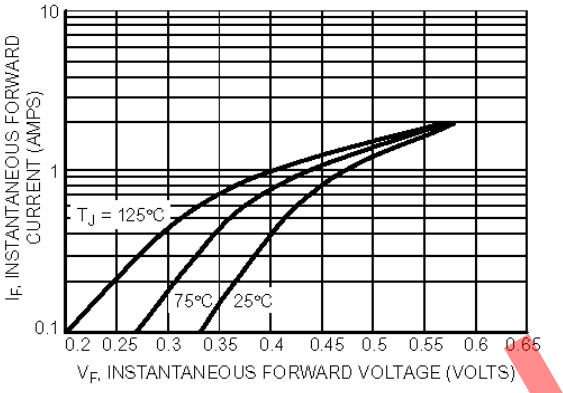


Figure 2. Typical Forward Voltage

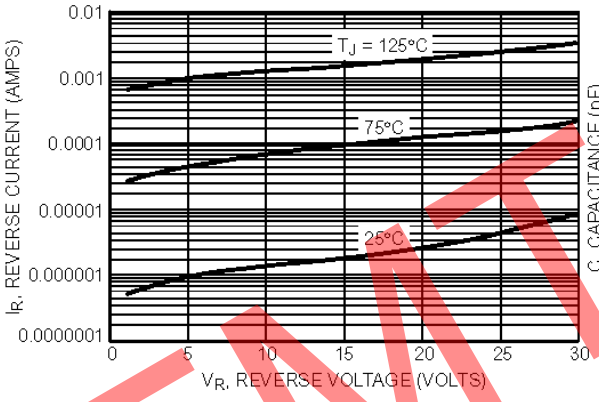


Figure 3. Typical Reverse Current

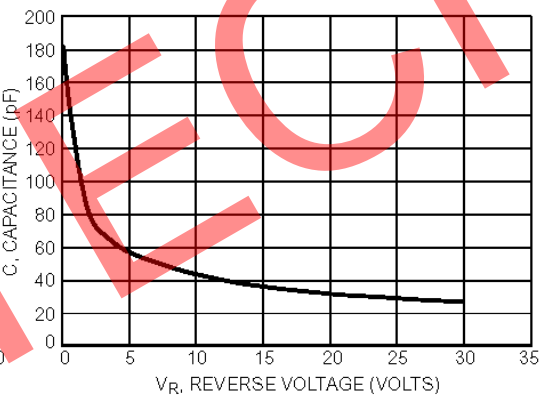


Figure 4. Typical Capacitance

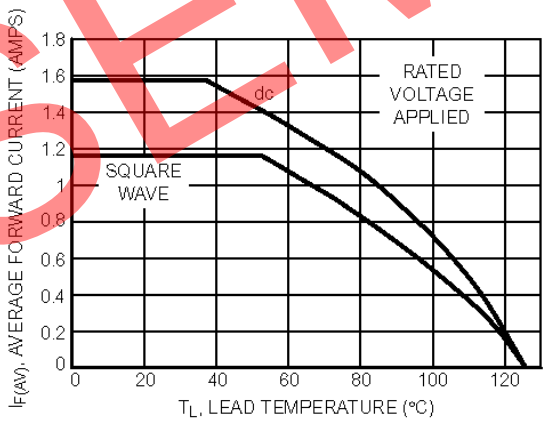


Figure 5. Current Derating, Lead, $R_{\theta JL}$ = 108°C/W

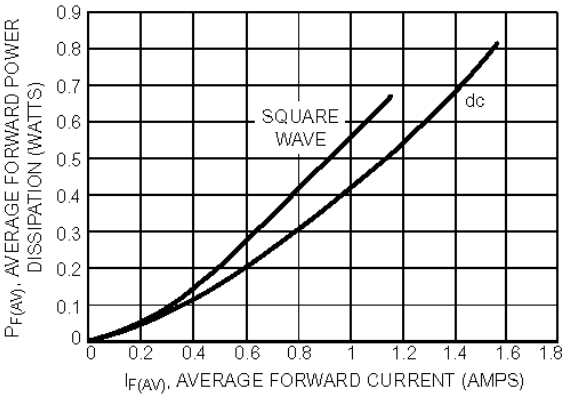
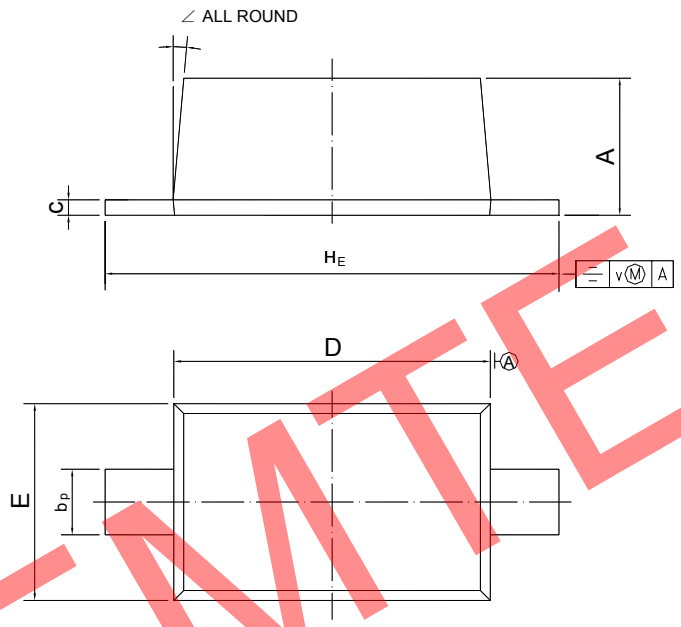


Figure 6. Forward Power Dissipation

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123**



UNIT	A	b_p	c	D	E	H_E	v	∠
mm	1.15 1.05	0.6 0.5	0.135 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°