



FUKUCOM COMPANY LTD.

福靈有限公司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.
TEL: 852-2790 0314 FAX: 852-2790 0206

MBR130W

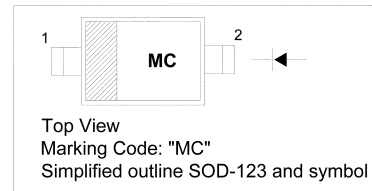
SURFACE MOUNT SCHOTTKY POWER RECTIFIER

Features

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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) $T_L = 65\text{ }^\circ\text{C}$	$I_{F(AV)}$	1	A
Non-Repetitive Peak Forward Surge Current (Surge Applied at Rated Load Conditions, Halfwave, Single Phase, 60 Hz)	I_{FSM}	5.5	A
Operating Junction Temperature	T_j	- 65 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_S	- 65 to + 125	$^\circ\text{C}$

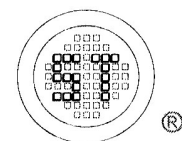
Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	230 ¹⁾	$^\circ\text{C/W}$
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	108 ¹⁾	$^\circ\text{C/W}$

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

Characteristics at $T_{amb} = 25\text{ }^\circ\text{C}$

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



SEMTECH

Dated : 27/05/2006



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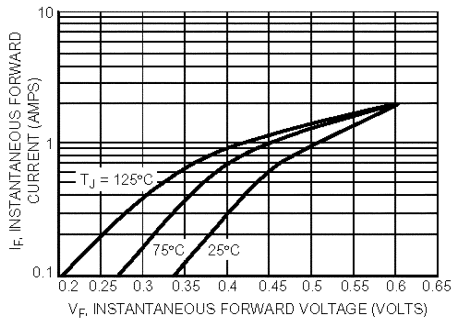


Figure 1. Maximum Forward Voltage

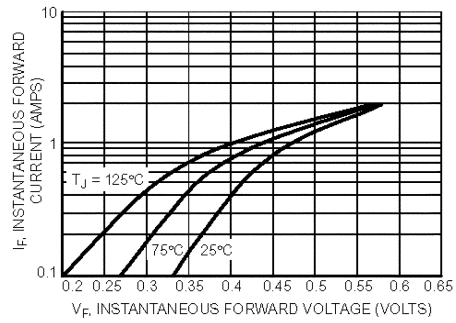


Figure 2. Typical Forward Voltage

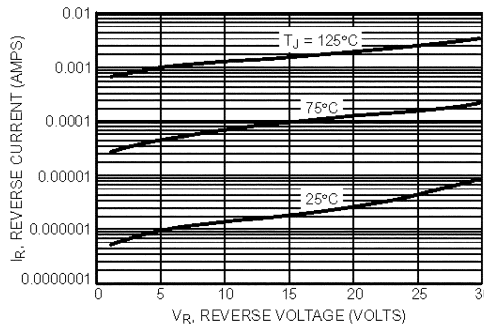


Figure 3. Typical Reverse Current

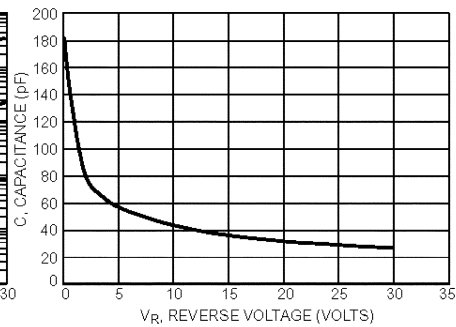


Figure 4. Typical Capacitance

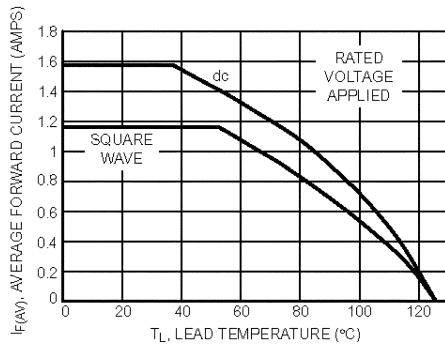


Figure 5. Current Derating, Lead, $R_{\theta JL} = 108^\circ\text{C/W}$

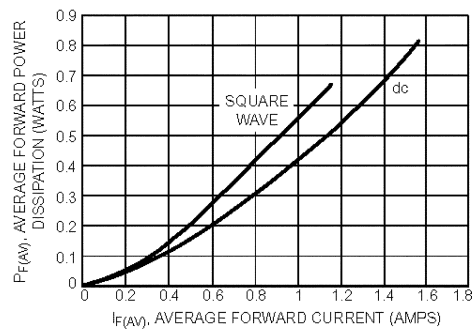
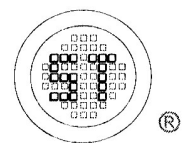


Figure 6. Forward Power Dissipation



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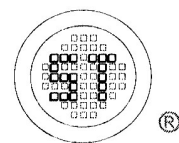
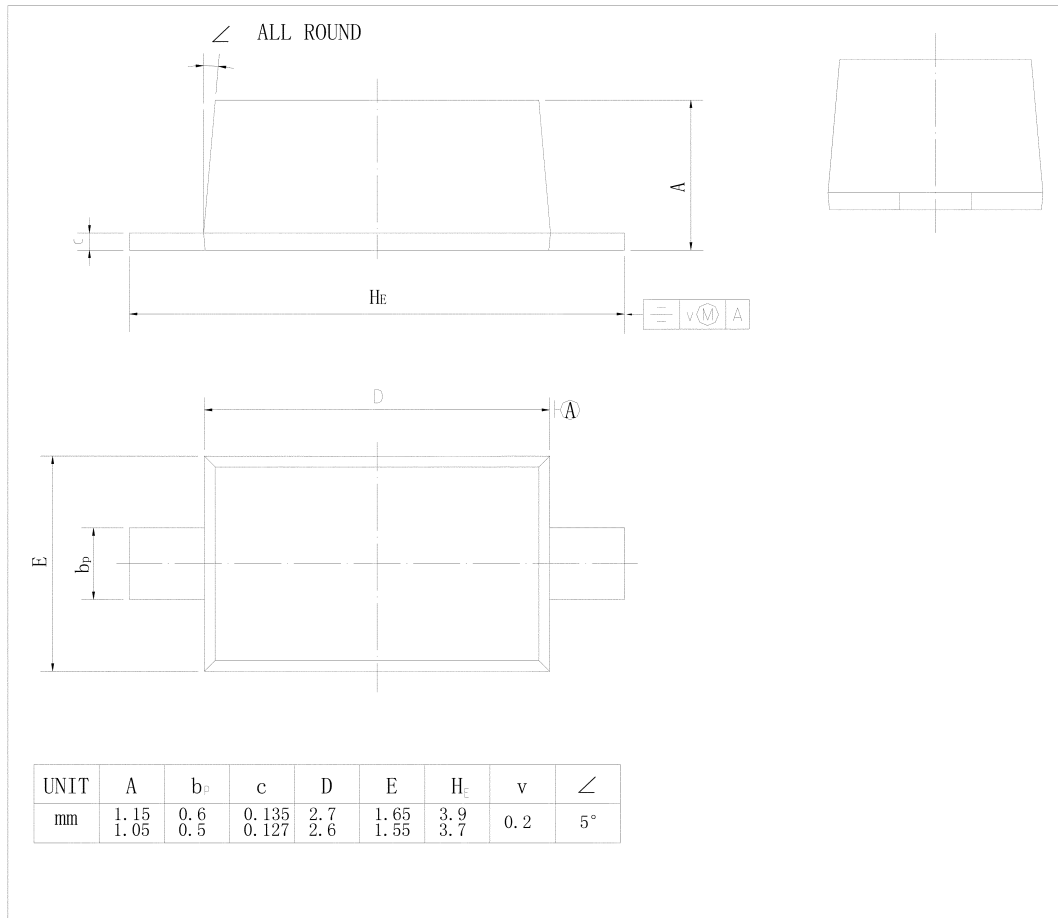
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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



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