

MBR0520L

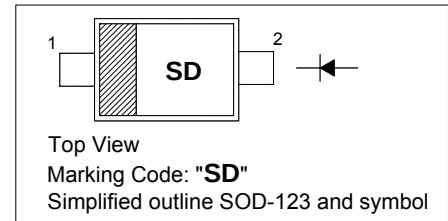
SCHOTTKY BARRIER RECTIFIER

Features

- Very low forward voltage

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



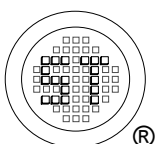
Absolute Maximum Ratings ($T_a = 25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	V_R	20	V
Average Rectified Forward Current	$I_{F(AV)}$	0.5	A
Non-Repetitive Peak Forward Current (Surge applied at rated load conditions halfwave, single phase, 60 Hz)	I_{FSM}	5.5	A
Thermal Resistance Junction to Lead	$R_{\theta JL}$	150	$^{\circ}\text{C/W}$
Thermal Resistance Junction to Ambient ¹⁾	$R_{\theta JA}$	340	$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	- 65 to + 125	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

¹⁾ FR-4 or FR-5 = 3.5 X 1.5 inches using minimum recommended land pads.

Electrical Characteristics ($T_a = 25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 0.1\text{ A}$ at $I_F = 0.5\text{ A}$ at $I_F = 0.1\text{ A}$, $T_a = 100\text{ }^{\circ}\text{C}$ at $I_F = 0.5\text{ A}$, $T_a = 100\text{ }^{\circ}\text{C}$	V_F	0.3 0.385 0.22 0.33	V
Reverse Current at $V_R = 10\text{ V}$ at $V_R = 20\text{ V}$ at $V_R = 10\text{ V}$, $T_a = 100\text{ }^{\circ}\text{C}$ at $V_R = 20\text{ V}$, $T_a = 100\text{ }^{\circ}\text{C}$	I_R	75 250 5 8	μA μA mA mA



SEMTECH ELECTRONICS LTD.

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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

Dated : 17/08/2006

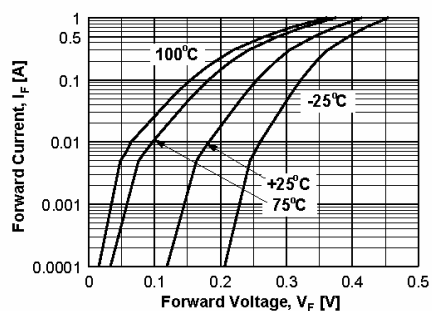


Figure 1. Forward Voltage Characteristics

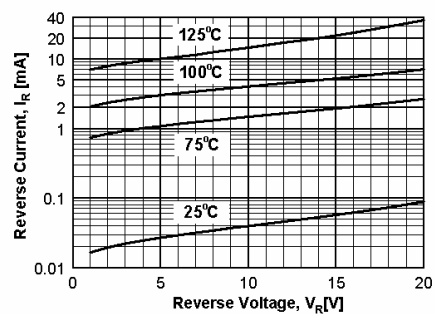


Figure 2. Reverse Current vs Reverse Voltage

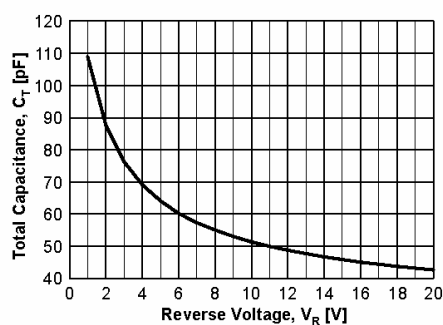
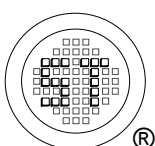


Figure 3. Total Capacitance



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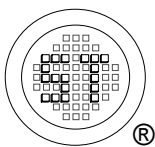
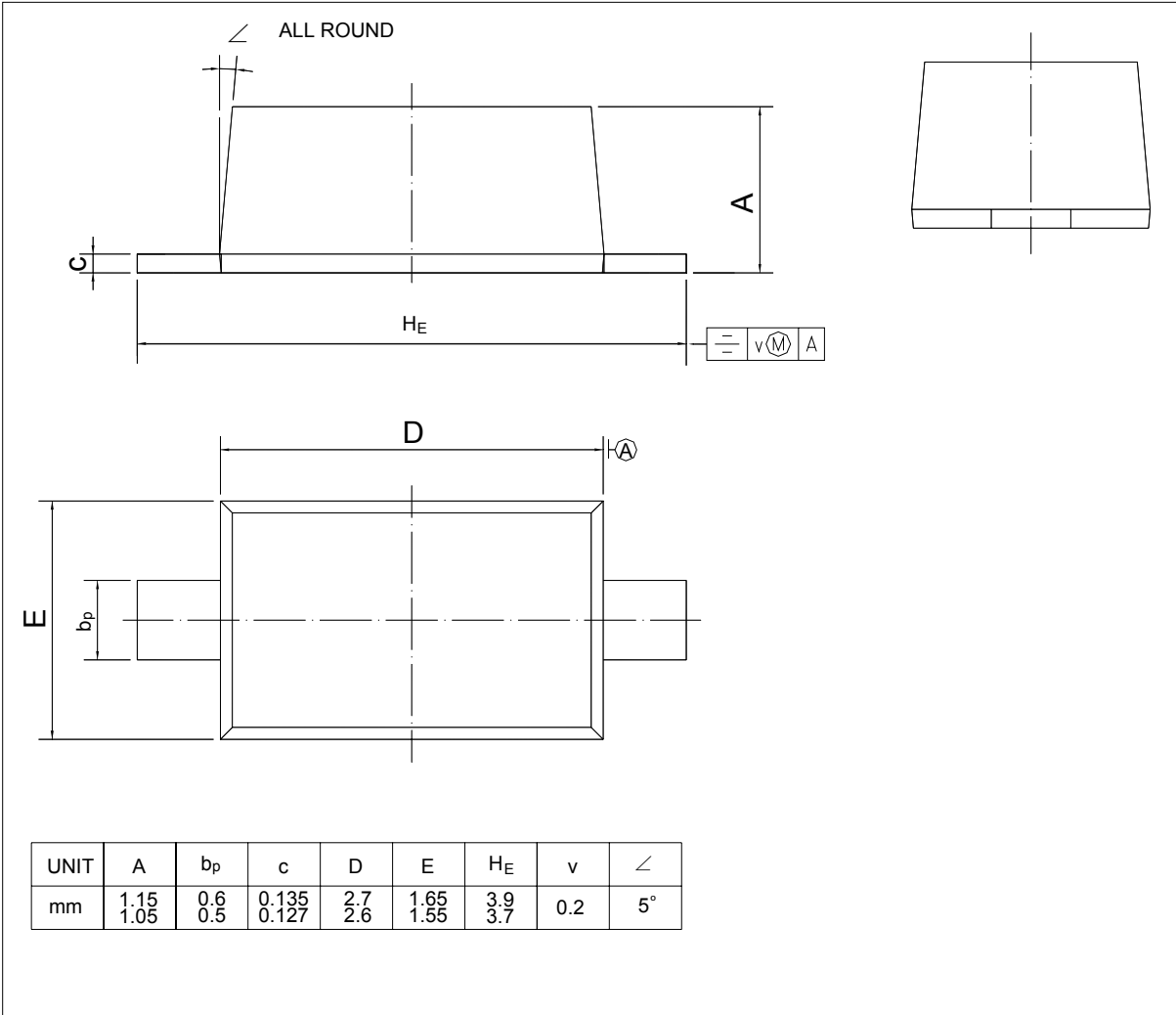


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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



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