

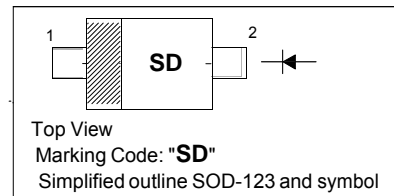
## Surface Mount Schottky Barrier Diode

### 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 <sup>1)</sup>	$R_{\theta JA}$	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	$^\circ\text{C}$

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

### 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	$\mu\text{A}$ $\mu\text{A}$ mA mA

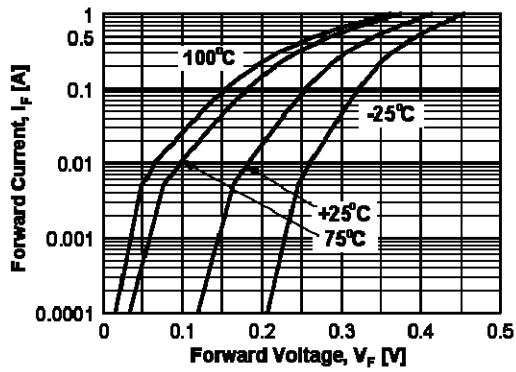


Figure 1. Forward Voltage Characteristics

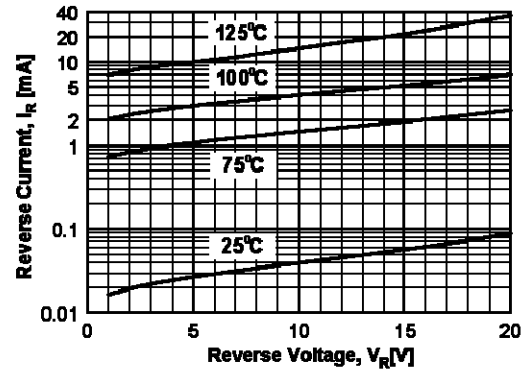


Figure 2. Reverse Current vs Reverse Voltage

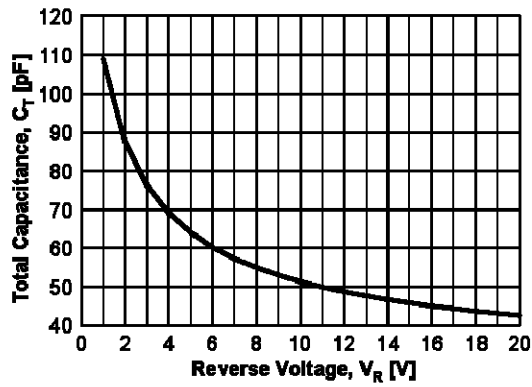


Figure 3. Total Capacitance



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# SOD-123

## MBR0520L

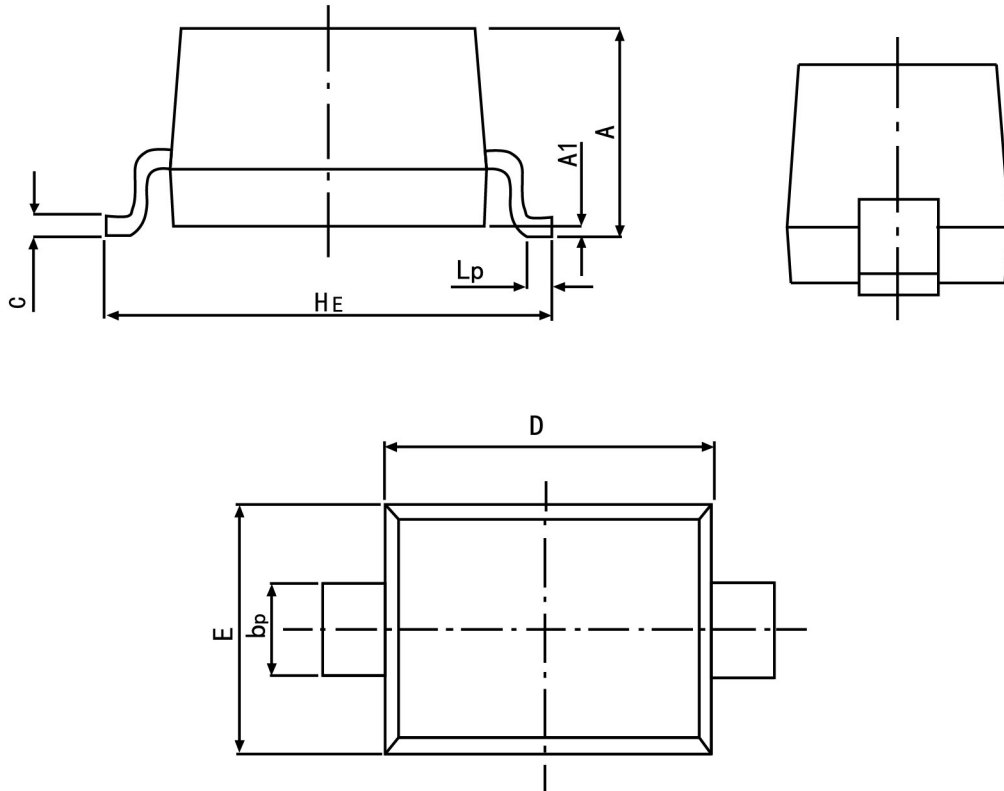


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### PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.20
bp	0.50	0.60
C	0.100	0.135
D	2.55	2.75
E	1.55	1.65
HE	3.55	3.85
A1	0.01	0.10
Lp	0.20	0.50