

MBR0530

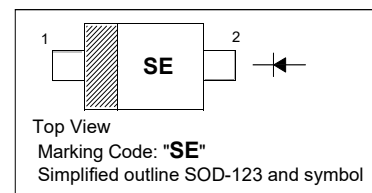
Surface Mount Schottky Barrier Diode

Features

- Very low forward voltage
- High Current Capability

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Non-Repetitive Peak Reverse Voltage	V_{RSM}	30	V
Maximum DC Blocking Voltage	V_R	30	V
Average Forward Rectified Current	$I_{F(AV)}$	0.5	A
Peak Forward Surge Current (8.3 ms Single Half Sine-wave)	I_{FSM}	5.5	A
Thermal Resistance Junction to Lead	$R_{\theta JL}$	150	$^\circ\text{C/W}$
Thermal Resistance Junction to Ambient ¹⁾	$R_{\theta JA}$	206	$^\circ\text{C/W}$
Operating Junction Temperature	T_j	- 65 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 125	$^\circ\text{C}$

¹⁾ 1 inch square pad size (1 X 0.5 inch for each lead) on FR4 board

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

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 500\text{ mA}$	V_F	0.375 0.5	V
Reverse Current at $V_R = 30\text{ V}$ at $V_R = 15\text{ V}$	I_R	130 20	μA

Typical Characteristic Curves

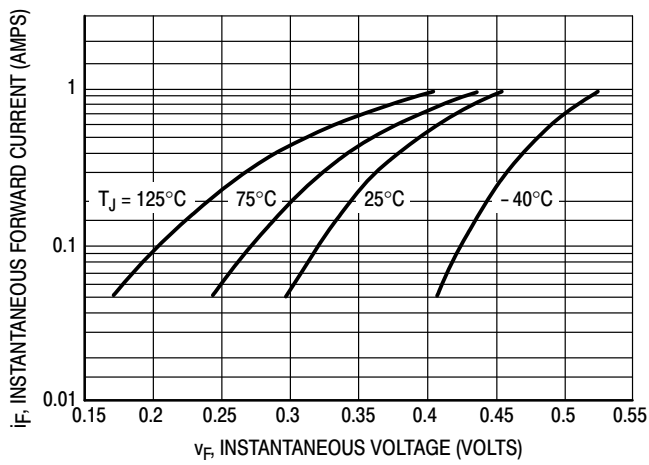


Figure 1. Typical Forward Voltage

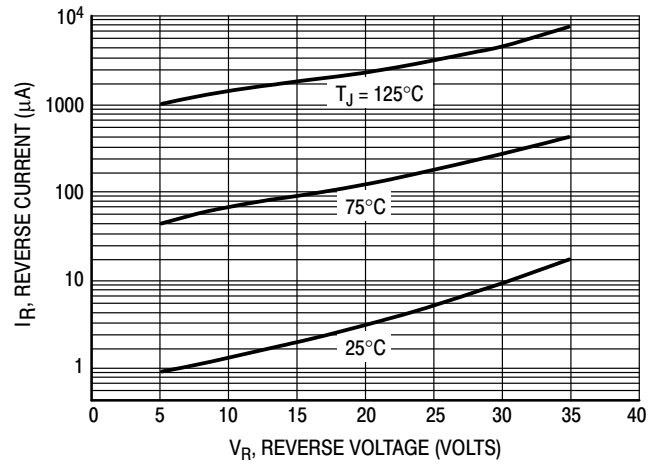


Figure 2. Typical Reverse Current

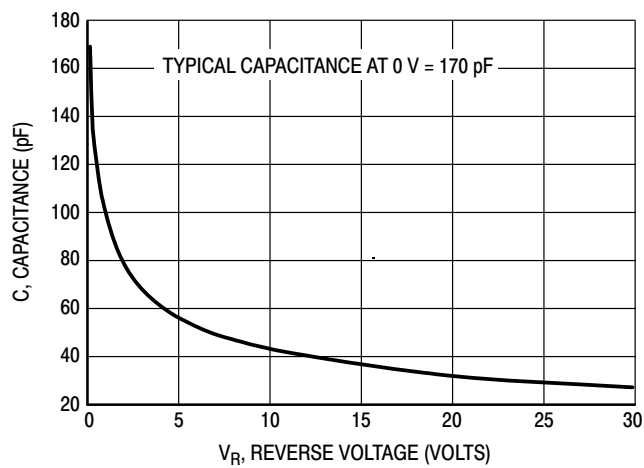
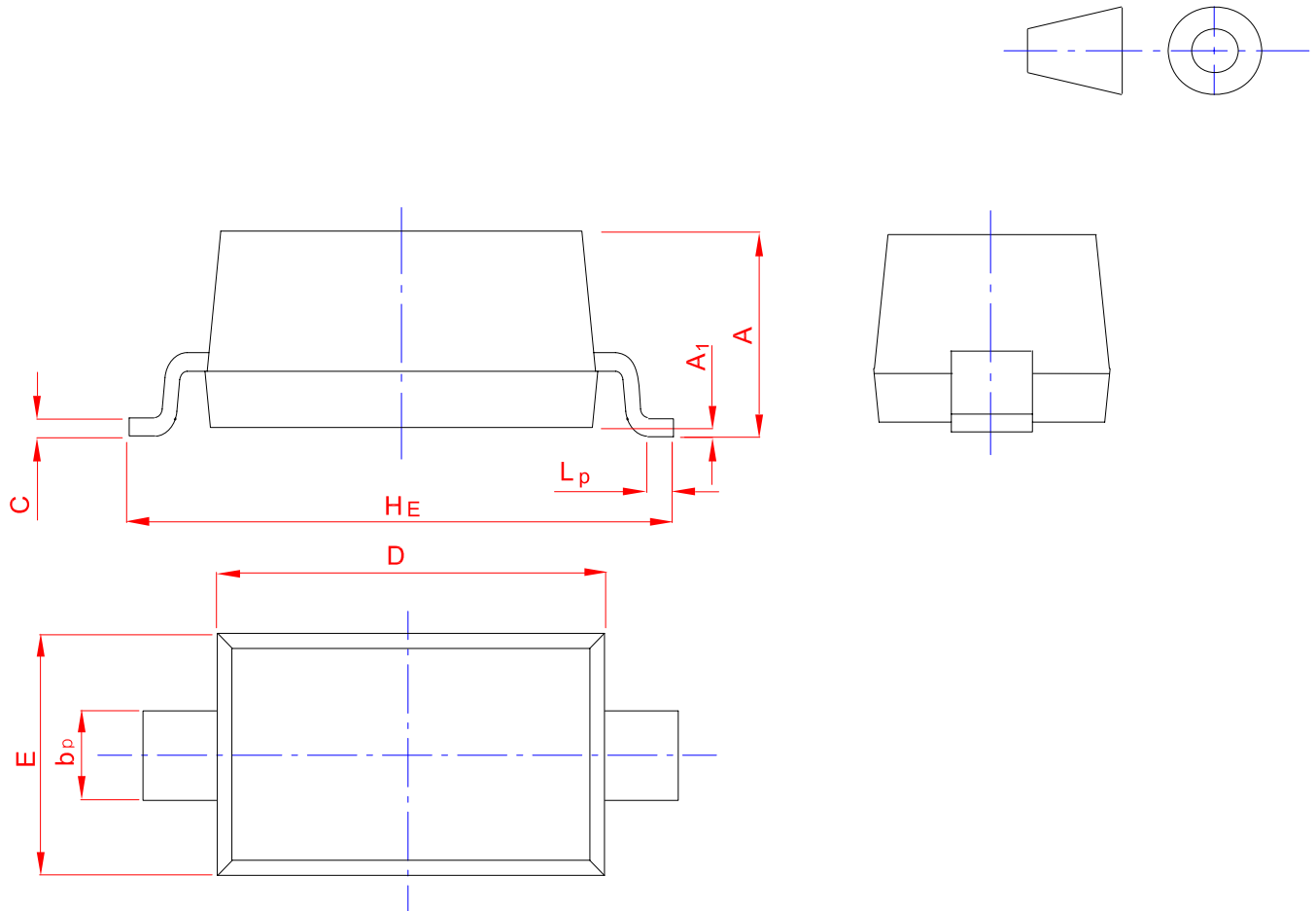


Figure 3. Typical Capacitance

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b _p	C	D	E	H _E	A ₁	L _p
mm	1.25 0.90	0.65 0.45	0.15 0.08	2.80 2.55	1.70 1.50	3.85 3.55	0.10 0.01	0.50 0.20