

## SOD- 123 Plastic-Encapsulate Schottky Barrier Diode

### Features

- High current capability
- Low forward voltage drop

### Mechanical Data

- SOD-123 Small outline plastic package
- Polarity: color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting position: Any



**Marking: S9    SOD-123**

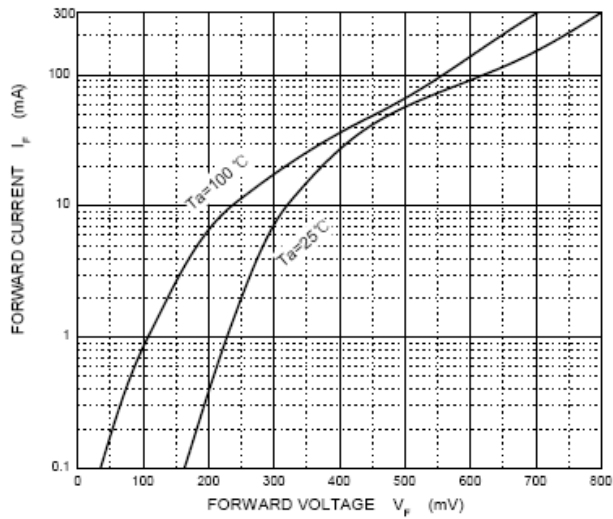
Maximum Ratings & Thermal Characteristics (T <sub>A</sub> =25°C unless otherwise noted)			
Parameters	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	100	V
Non-repetitive Peak Forward Current	I <sub>FM</sub>	350	mA
Peak forward surge current 8.3 ms single half sine-wave	I <sub>FSM</sub>	750	mA
Power dissipation	P <sub>D</sub>	500	mW
Typical thermal resistance	R <sub>θJA</sub>	200	°C/W
Storage temperature range	T <sub>STG</sub>	-55-+150	°C
Junction temperature	T <sub>j</sub>	125	°C

Electrical Characteristics (T <sub>A</sub> =25°C unless otherwise noted)						
Parameter	Symbols	Test Condition	Limits			Unit
			Min	Typ	Max	
Maximum reverse breakdown voltage	VR	IR=100uA	100			V
Maximum reverse current	IR	VR=1.5V			0.3	uA
		VR=10V			0.5	
		VR=50V			1.0	
		VR=75V			2.0	
Maximum forward voltage	VF	IF=0.1mA			250	mV
		IF=10mA			450	
		IF=25mA			1000	
Type junction capacitance	C <sub>j</sub>	VR=0V, f=1MHZ		20		pF
		VR=1.0V, f=1MHZ		12		

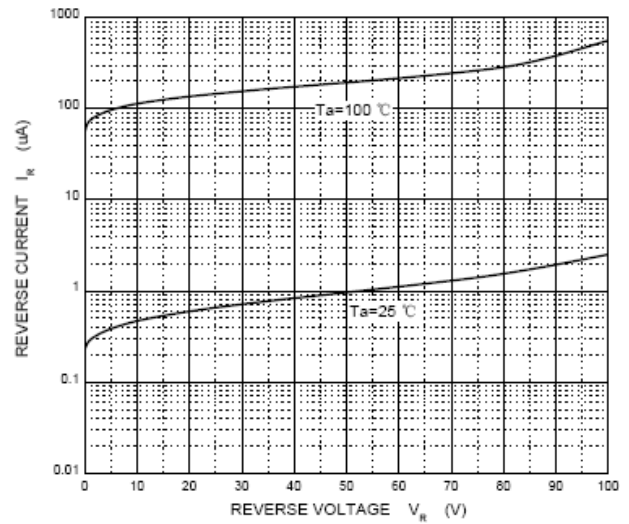
## Ratings and Characteristics Curves

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

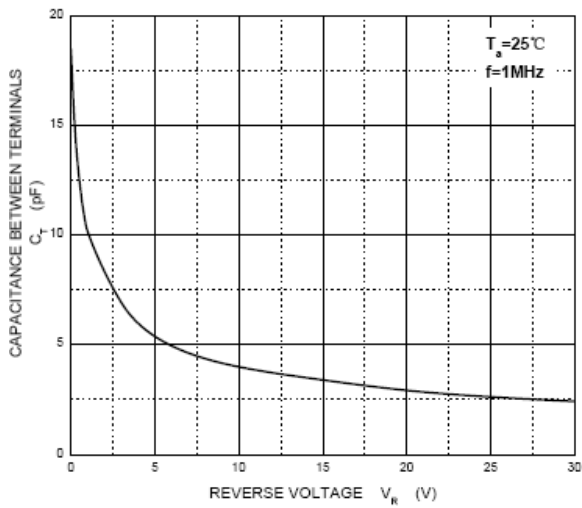
**Forward Characteristics**



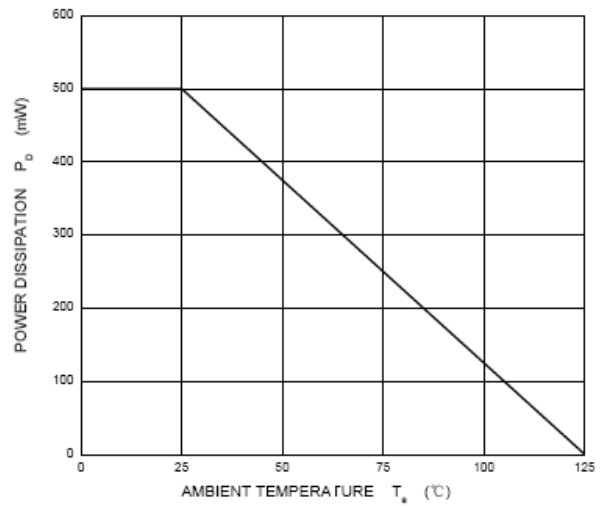
**Reverse Characteristics**



**Capacitance Characteristics**

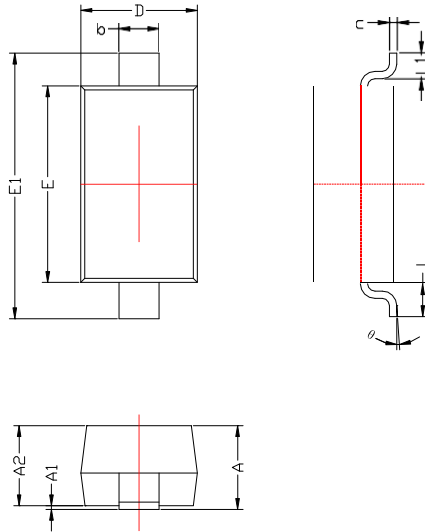


**Power Derating Curve**



## Package Outline Dimensions

in inches (millimeters)



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
$\theta$	0°	8°

## Revision History

Document Version	Date of release	Description of changes
Rev.A	2015.04.10	First issue

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