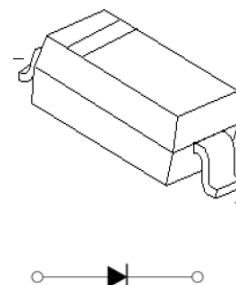


SOD-123 Plastic-Encapsulate Diodes

SCHOTTKY BARRIER DIODE

SOD-123



FEATURES

- High breakdown voltage
- Low turn-on voltage
- Guard ring construction for transient protection
- **Pb-Free package is available**
RoHS product for packing code suffix "G"
Halogen free product for packing code suffix "H"
- **Moisture Sensitivity Level 1**
- **Polarity:** Color band denotes cathode end

MARKING: S9
Maximum Ratings @T_a=25°C

Parameter	Symbol	Limit	Unit
Peak repetitive peak reverse voltage	V _{RRM}	100	V
Working peak reverse voltage	V _{RWM}		
Forward continuous current	I _F	150	mA
Repetitive peak forward current (Note 1) @ tp < 1.0s, Duty Cycle < 50%	I _{FRM}	350	mA
Forward surge current (Note 1) @ tp = 10ms	I _{FSM}	750	mA
Power dissipation	P _D	500	mW
Thermal resistance junction to ambient air	R _{θJA}	200	°C/W
Operating temperature	T _j	-55~+125	°C
Storage temperature	T _{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

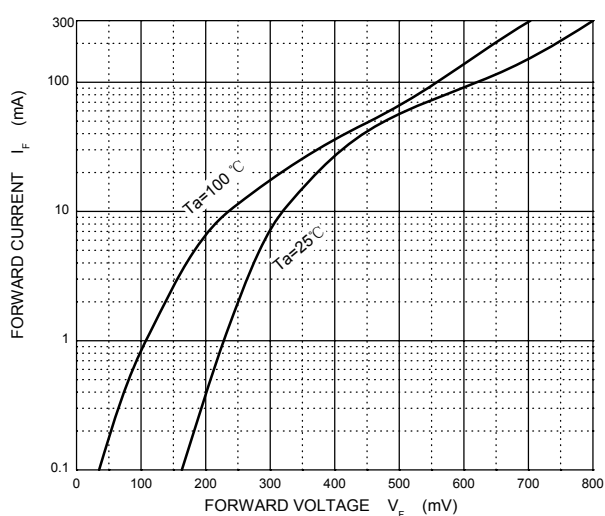
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage(Note 2)	V _R	I _R = 100μA	100			V
Reverse voltage leakage current	I _R	V _{R1} =1.5V			0.3	μA
		V _{R2} =10V			0.5	
		V _{R3} =50V			1	
		V _{R4} =75V			2	
Forward voltage(Note 2)	V _F	I _{F1} =0.1mA			0.25	V
		I _{F2} =10mA			0.45	
		I _{F3} =250mA			1	
Diode capacitance	C _T	V _R =0, f=1MHz		20		pF
		V _R =1V, f=1MHz		12		

Notes: 1. Part mounted on FR-4 board with recommended pad layout.

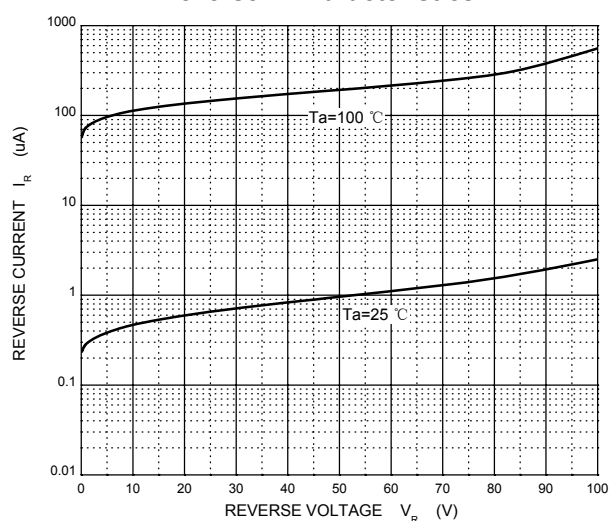
2. Short duration pulse test used to minimize self-heating effect.

Typical Characteristics

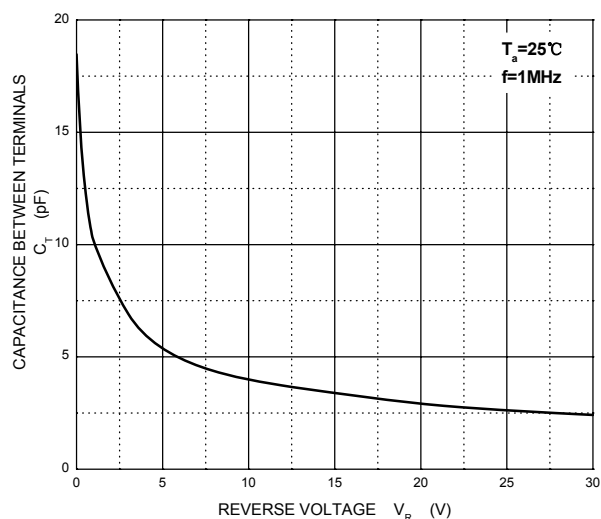
Forward Characteristics



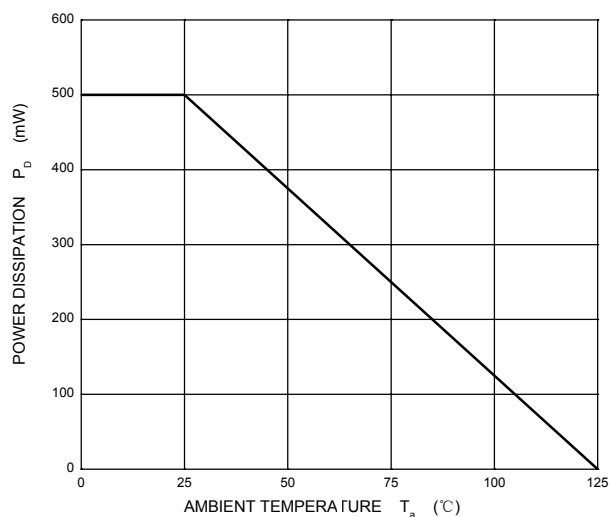
Reverse Characteristics



Capacitance Characteristics



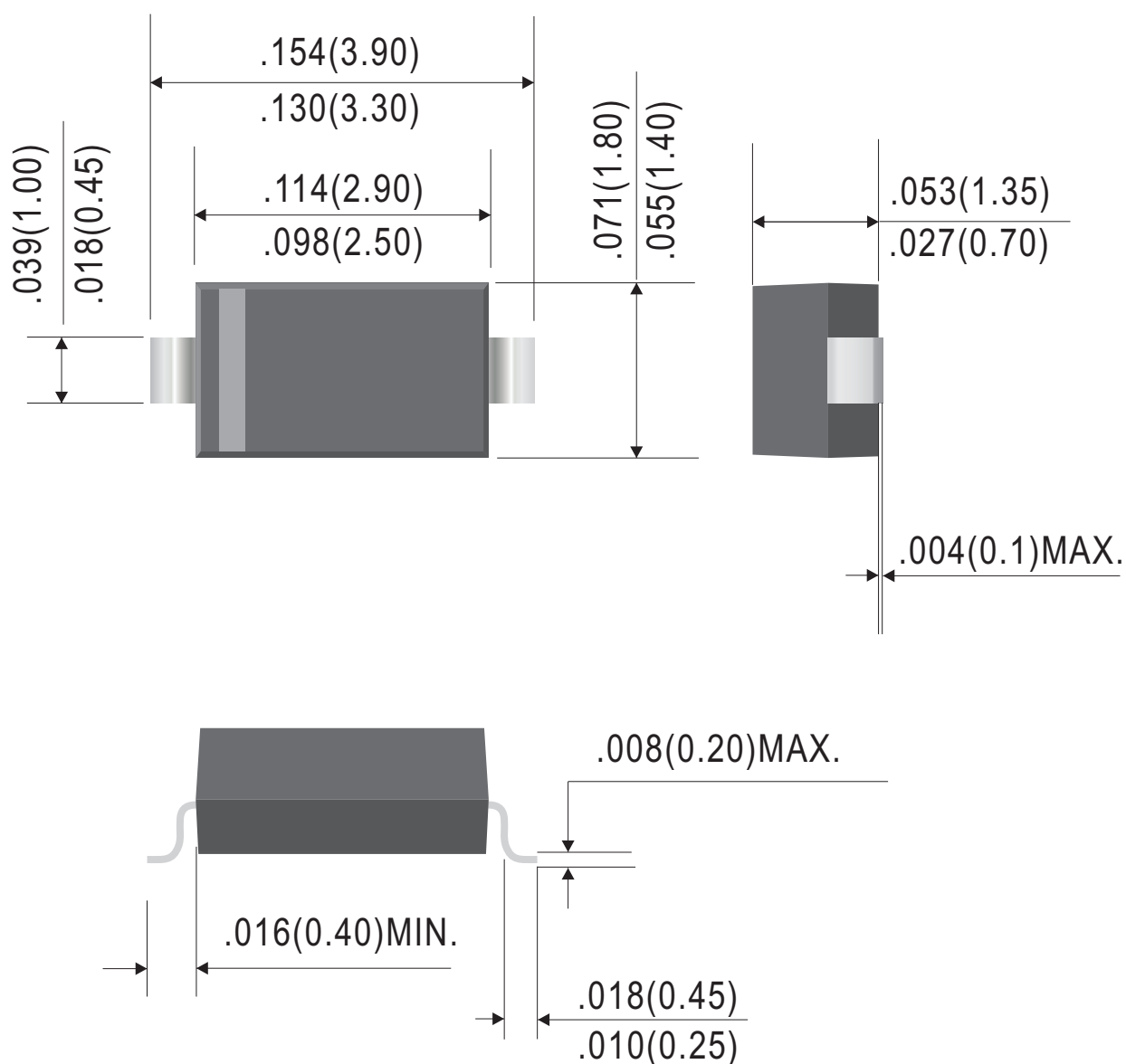
Power Derating Curve



SOD-123 Plastic-Encapsulate Diodes

Outline Drawing

SOD-123



Dimensions in inches and (millimeters)

Rev.D

SOD-123 Plastic-Encapsulate Diodes

Ordering Information:

Device PN	Packing
BAT46W -T ⁽¹⁾ G ⁽²⁾ -WS	Tape&Reel: 3 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

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