



SEMICONDUCTOR

BAT46W

SMALL SIGNAL SCHOTTKY DIODES

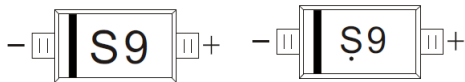
FEATURES

- High breakdown voltage
- Low turn-on voltage
- Guard ring construction for transient protection
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

MECHANICAL DATA

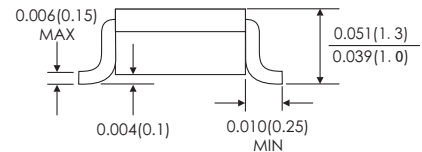
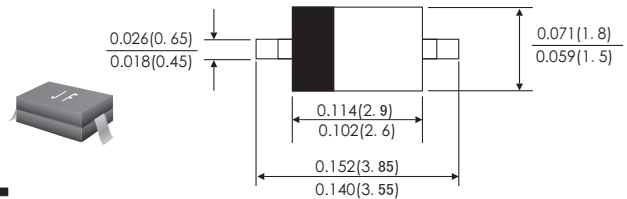
- Case: SOD-123 plastic case
- Polarity: color band denotes cathode end

MARKING



Solid dot = Green molding compound device, if none, the normal device.

SOD-123



Dimensions in inches and (millimeters)

ABSOLUTE RATINGS(LIMITING VALUES)

	Symbols	Value	Units
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Forward Continuous Current at $T_A=25^\circ\text{C}$	I_F	150	mA
Repetitive Peak Forward Current at $t_b < 1\text{s}$, $\delta < 0.5$, $T_A=25^\circ\text{C}$	I_{FRM}	350	mA
Surge forward current at $t_b = 8.3\text{ms}$, $T_A=25^\circ\text{C}$	I_{FSM}	750	mA
Power Dissipation	P_D	500	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	200	$^\circ\text{C/W}$
Junction temperature	T_J	125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

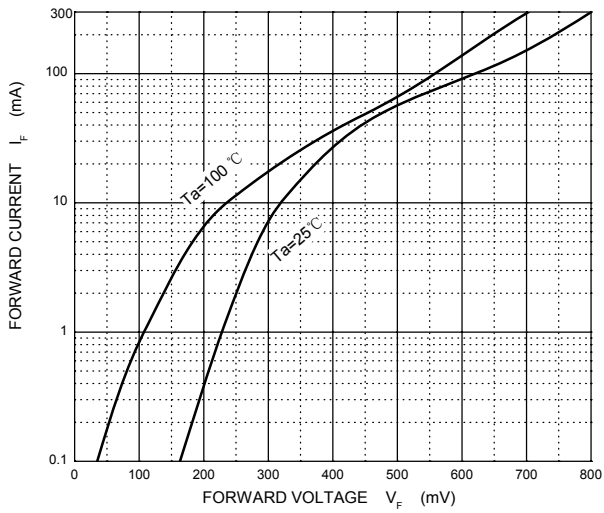
ELECTRICAL CHARACTERISTICS

	Symbols	Min.	Typ.	Max.	Units
Reverse breakdown voltage (Note 1)	$V_{(BR)R}$	100			V
Forward voltage at $I_F=0.1\text{mA}$, at $I_F=10\text{mA}$, at $I_F=250\text{mA}$,	V_F			0.25 0.45 1	V
Reverse voltage leakage current $V_{R1}=1.5\text{V}$ $V_{R2}=10\text{V}$ $V_{R3}=50\text{V}$ $V_{R4}=75\text{V}$	I_R			0.3 0.5 1 2	μA
Junction Capacitance At $V_R=0\text{V}$, $f=1\text{MHz}$ At $V_R=1\text{V}$, $f=1\text{MHz}$	C_J		20 12		pF

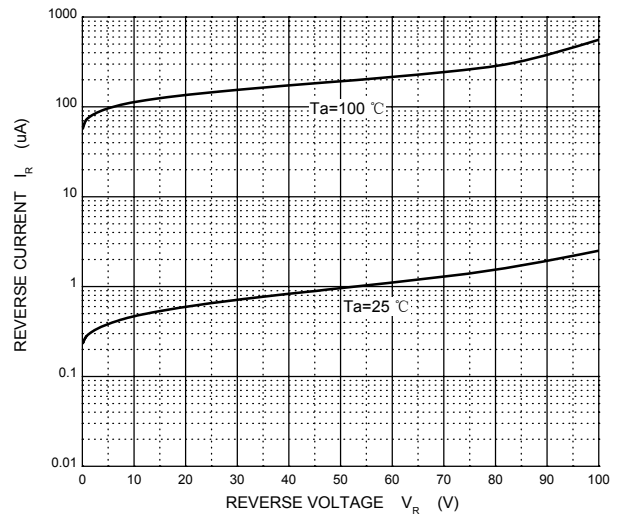
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RATINGS AND CHARACTERISTIC CURVES

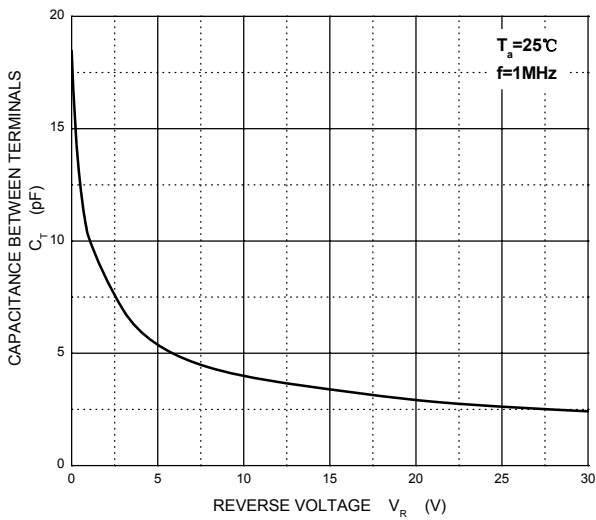
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

