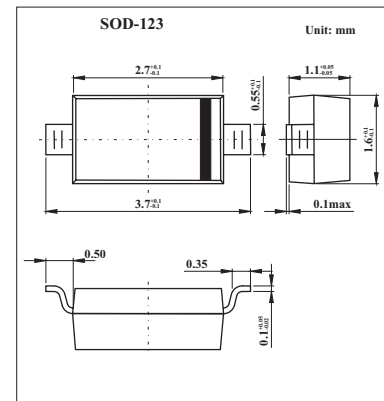


SURFACE MOUNT SCHOTTKY BARRIER DIODE

BAT46W



■ Features

- Low Turn-on Voltage
- Guard Ring Construction for Transient
- Surface Mount Package Ideally Suited for Automatic Insertion Protection

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
DC Blocking Voltage	V_R	100	V
Average Rectified Forward Current	I_o	75	mA
Forward Continuous Current (Note 1)	I_F	150	mA
Repetitive Peak Forward Current (Note 1) @ $t_p < 1.0\text{s}$, Duty Cycle $< 50\%$	I_{FRM}	350	mA
Forward Surge Forward Current (Note 1) @ $t_p = 10\text{ms}$	I_{FSM}	750	mA
Power Dissipation (Note 1)	P_d	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to + 125	$^\circ\text{C}$

Note:

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

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	I _R = 100 μA	100			V
Forward Voltage Drop (Note 2)	V _F	I _F = 0.1 mA			0.25	V
		I _F = 10 mA			0.45	
		I _F = 250 mA			1.00	
Peak Reverse Current (Note 2)	I _R	V _R = 1.5V			0.5	μA
		V _R = 1.5V, T _j = 60 °C			5.0	
		V _R = 10V			0.8	
		V _R = 10 V, T _j = 60 °C			7.5	
		V _R = 50 V			2.0	
		V _R = 50 V, T _j = 60 °C			15	
Total Capacitance	C _T	V _R = 0V, f = 1.0MHz		10		pF
		V _R = 1.0V, f = 1.1MHz		6.0		

Note

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

■ Marking

Marking	S9
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