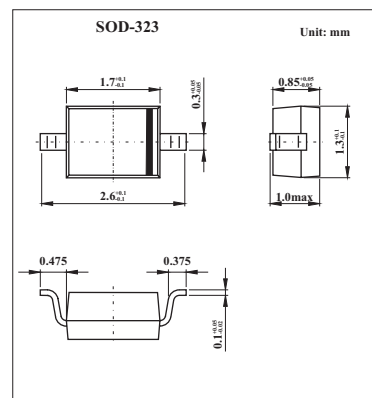


SURFACE MOUNT SCHOTTKY BARRIER DIODE

BAT54WS

■ Features

- Low Switching
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material - UL Recognition Flammability Classaification 94V-O



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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Forward Continuous Current (Note 1)	I_F	200	mA
Rectified Peak Forward Current (Note 1)	I_{FRM}	300	mA
Non-Repetitive Peak Forward Current @ $t < 1.0\text{s}$	I_{FSM}	600	mA
Power Dissipation (Note)	P_d	200	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +125	$^\circ\text{C}$

Note:

1. Valid provided that terminals are kept at ambient temperature.

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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	@ $I_{RS} = 100 \mu\text{A}$	30			V
Forward Voltage Drop (Note 2)	V_F	@ $I_F = 1.0 \text{ mA}$			0.32	V
		@ $I_F = 100 \text{ mA}$			1.0	
Reverse Leakage Current (Note 2)	I_R	@ $V_R = 25 \text{ V}$			2.0	μA
Junction Capacitance	C_j	@ $V_R = 1.0 \text{ V}, f = 1.0 \text{ MHz}$			10	pF
Reverse Recovery Time	t_{rr}	$I_F = 10 \text{ mA}$ through $I_R = 100 \text{ mA}$ to $I_{RR} = 1.0 \text{ mA}, R_L = 100 \Omega$			5.0	nS

Note:

2. $t < 300 \mu\text{s}$, duty cycle $< 2\%$

■ Marking

Marking	L4
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