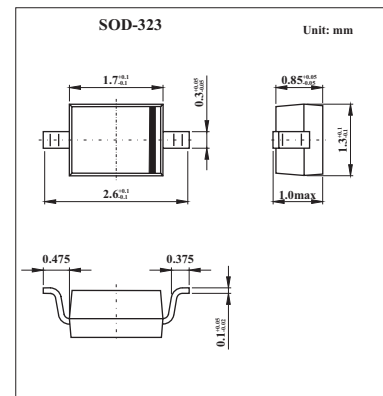


SURFACE MOUNT SCHOTTKY BARRIER DIODE

BAT42WS / BAT43WS

■ Features

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

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}		
Working Peak Reverse Voltage	V_{RWM}	30	V
DC Blocking Voltage	V_R		
Forward Continuous Current (Note 1)	I_F	200	mA
Rectified Peak Forward Current (Note 1) @ $T < 1.0\text{s}$	I_{FSM}	500	mA
Non-Repetitive Peak Forward Current @ $t < 10\text{ms}$	I_{FSM}	4.0	A
Power Dissipation	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	V_F	BAT42WS @ $I_F = 1.0 \text{ mA}$			0.4	V
		BAT42WS @ $I_F = 200 \text{ mA}$			1.0	
		BAT43WS @ $I_F = 2.0 \text{ mA}$			0.33	
		BAT43WS @ $I_F = 200 \text{ mA}$			1.0	
Reverse Leakage Current	I_R	@ $V_R = 25 \text{ V}$			0.5	μA
Junction Capacitance	C_j	$V_R = 1.0 \text{ V}, f = 1.0 \text{ MHz}$			10	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10 \text{ mA}$ $I_{RR} = 0.1 \times I_R, R_L = 100 \Omega$			5.0	nS

■ Marking

Type	BAT42WS	BAT43WS
Marking	L2	L3