



# DATA SHEET

## BAT42WS~BAT43WS

### SURFACE MOUNT SCHOTTKY BARRIER

**VOLTAGE** 30 Volts **CURRENT** 0.20 Amperes

SOD-323

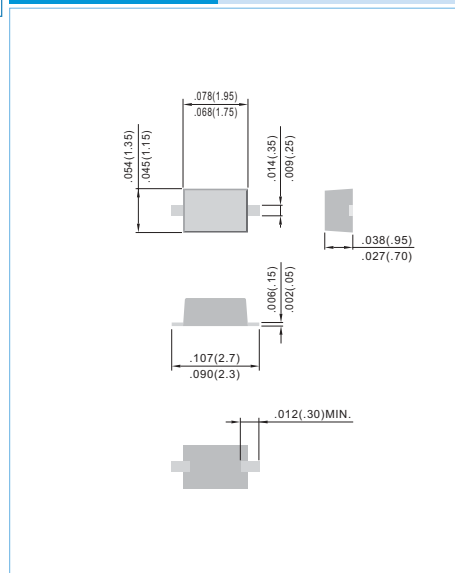
Unit: inch (mm)

#### FEATURES

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.
- Both normal and Pb free product are available :
  - Normal : 80~95% Sn, 5~20% Pb
  - Pb free: 98.5% Sn above

#### MECHANICAL DATA

Case: SOD-323, Plastic  
 Terminals: Solderable per MIL-STD-202, Method 208  
 Polarity: See Diagram Below  
 Approx. Weight: 0.0045 gram

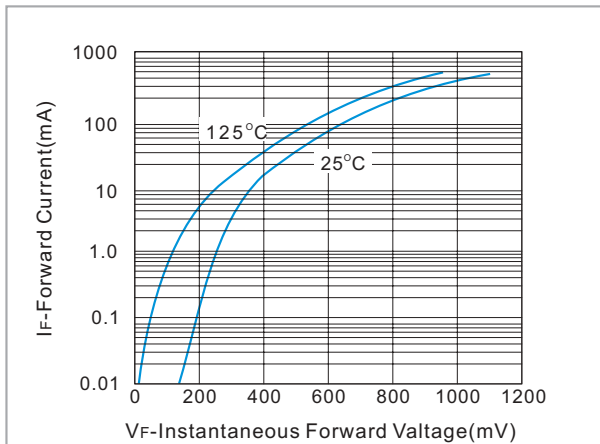


### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

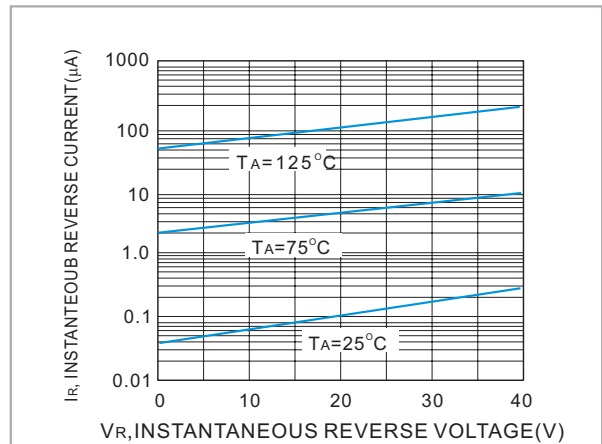
Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

Parameter	Symbol	BAT42WS	BAT43WS	Units
Marking Code		L2	L3	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	30		V
Maximum RMS Voltage	$V_{RMS}$	21		V
Maximum DC Blocking Voltage	$V_{DC}$	30		V
Maximum Average Forward Current at $T_a=75^\circ\text{C}$	$I_{AV}$	0.2		A
Peak Forward Surge Current, 1. ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	4.0		A
Maximum Instantaneous Forward Voltage	$V_F$	0.4 / 10mA 1.0 / 200mA	0.33 / 2.0mA 1.0 / 200mA	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.5		$\mu\text{A}$
Maximum Thermal Resistance (Note 1)	$R_{\theta JA}$	635		$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 TO +125		$^\circ\text{C}$

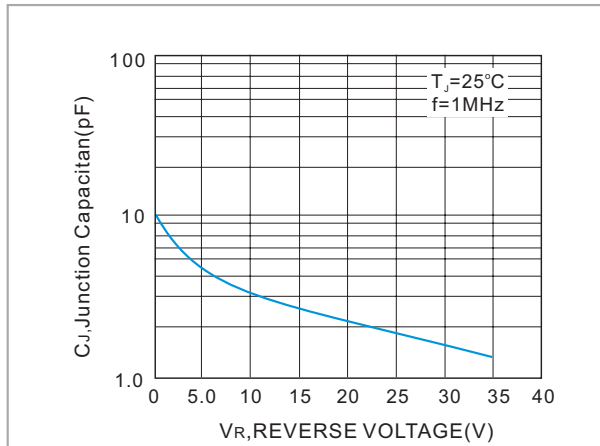
Note: 1.  $C_j$  at  $V_r=1$ ,  $f=1\text{MHz}$



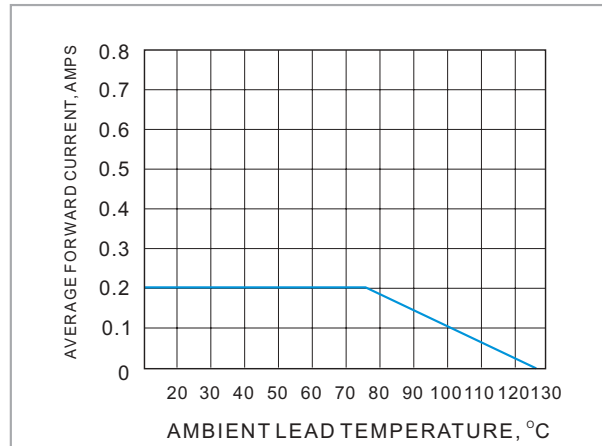
**Fig. 1-TYPICAL FORWARD CHARACTERISTIC**



**Fig. 2-TYPICAL REVERSE CHARACTERISTICS**



**Fig. 3-TYPICAL JUNCTION CAPACITANCE**



**Fig. 4-FORWARD DERATING CURVE**