BAT42WS, BAT43WS, BAT54WS

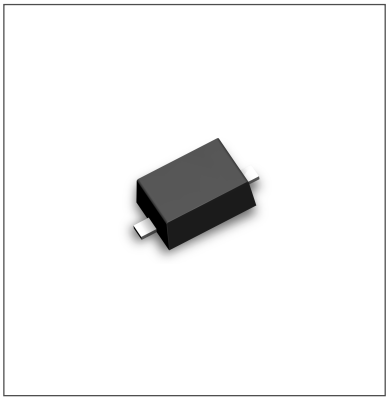
PANJIT SEMI CONDUCTOR

SURFACE MOUNT SCHOTTKY BARRIER

VOLTAGE 30 Volts | **CURRENT** 0.2 Amperes | **PACKAGE** SOD-323

FEATURES

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.



MECHANICAL DATA

Case: SOD-323, Plastic

Terminals: Solderable per MIL-STD-202, Method 208

Approx. Weight: 0.008 gram

Marking: L2, L3, L4

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

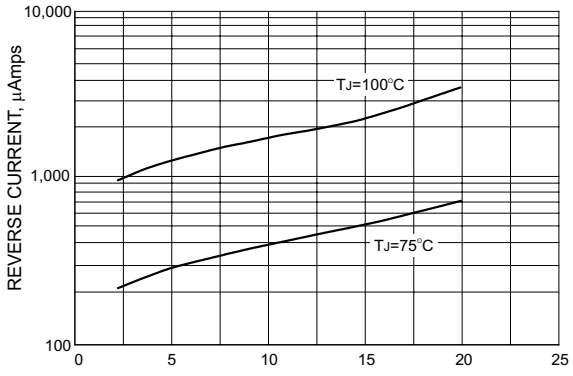
Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

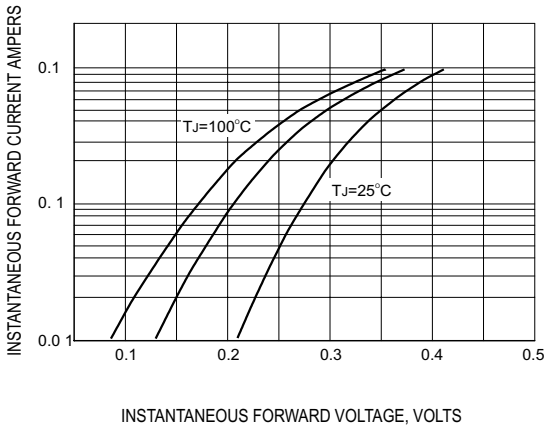
For capacitive load, derate current by 20%.

Parameter	Symbol	BAT42WS	BAT43WS	BAT54WS	Units
Peak Repetitive Reverse Voltage	V_{RRM}	30	30	30	V
Maximum Average Forward Current at Ta=25°C	I_O	0.2	0.2	0.2	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	4.0	4.0	0.6	A
Maximum Instantaneous Forward Voltage	V_F	0.4 @ I_F=0.01A 1.0 @ I_F=0.2A	0.33 @ I_F=0.002A 1.0 @ I_F=0.2A	0.32 @ I_F=0.001A 1.0 @ I_F=0.1A	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.5 @V_R=30V	0.5 @V_R=30V	2.0 @V_R=25V	µA
Thermal Resistance, Junction to Ambient Air	RθJA		635		°C / W
Operating Junction Temperature Range	T_J		-55 TO +125		°C
Storage Temperature Range	T_{STG}		-55 TO +125		°C

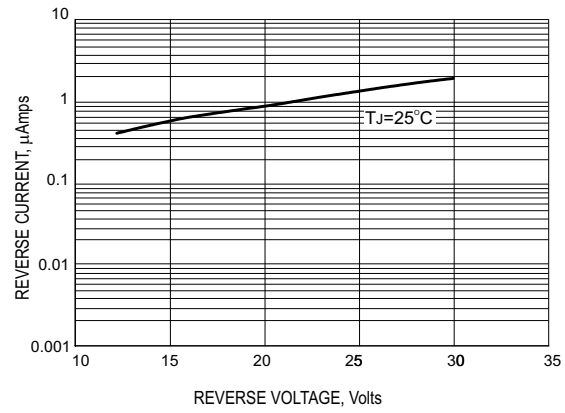
RATING and CHARACTERISTIC CURVES



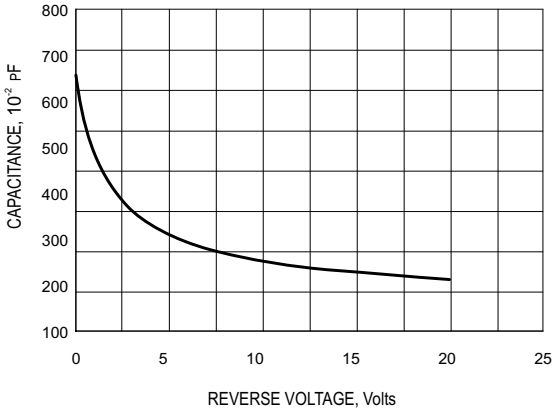
TYPICAL REVERSE CURRENT



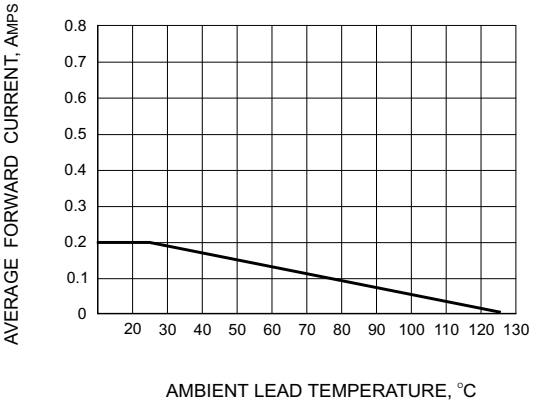
TYPICAL FORWARD VOLTAGE



TYPICAL REVERSE CURRENT

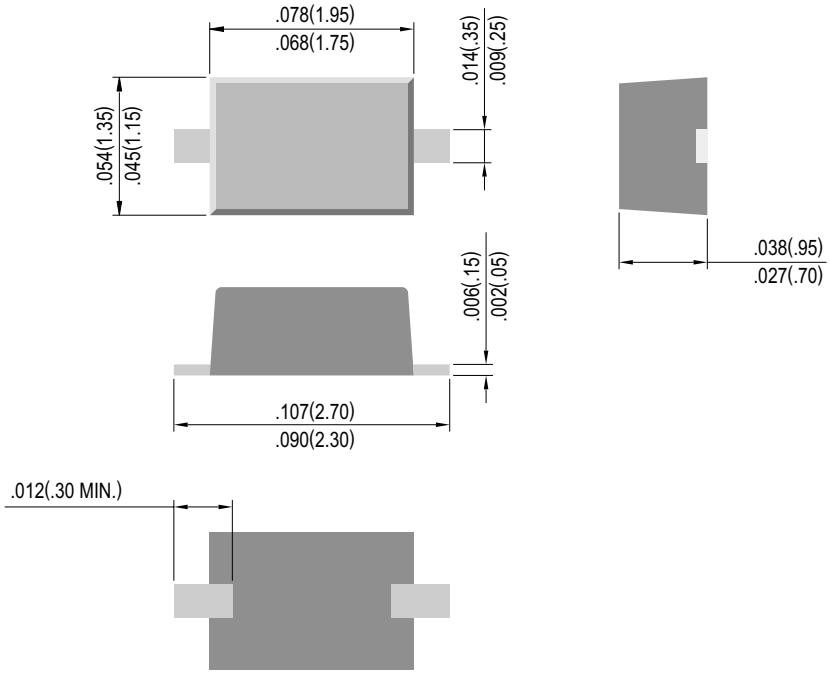


TYPICAL JUNCTION CAPACITANCE



CURRENT DERATING

SOD-323



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