



DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

BAT42WS
BAT43WS
BAT54WS

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER DIODES
VOLTAGE - 30 Volts **CURRENT - 0.2 Ampere**

FEATURES

- * For general purpose applications
- * Low turn-on voltage.
- * Fast switching time.
- * Protected by a PN junction guard ring against excessive voltage, such as electrostatic discharge(ESD).

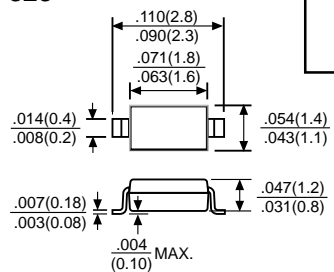
MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
- * Mounting position: Any
- * Weight: 0.008 grams Approx.

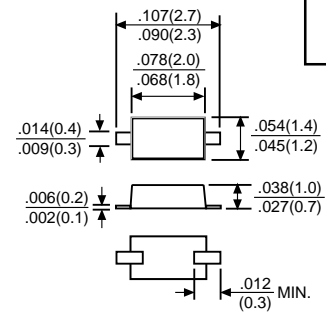
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

SOD-323



SOD-323F (Suffix "-F" to part No.)



Dimensions in inches(millimeters)

	SYMBOL	BAT42WS	BAT43WS	BAT54WS	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	30			Volts
Maximum RMS Voltage	V _{RMS}	21			Volts
Maximum DC Blocking Voltage	V _{DC}	30			Volts
Maximum Average Forward Rectified Current at T _A =75°C	I _O	0.2			Amps
Peak Forward Surge Current	I _{FSM}	4.0 @ t=10mS		0.6 @ t=1S	Amps
Maximum Instantaneous Forward Voltage	V _F	1.0 @ I _F =0.2A		1.0 @ I _F =0.1A	Volts
		0.4 @ I _F =0.01A	0.33 @ I _F =0.002A	0.32 @ I _F =0.001A	
Maximum DC Reverse Current @ V _R =25V	I _R	0.5		2.0	μAmps
Typical Thermal Resistance (Note1)	R _{θJA}	635			°C/W
Typical Junction Capacitance (Note 2)	C _J	10			pF
Storage Operating Temperature Range	T _J , T _{STG}	-55 to +125			°C

- NOTES : 1. Terminals maintained at specified ambient temperature.
2. Measured at 1 MHz and applied reverse voltage of 1.0 volts.
3. Suffix "F" indicates "SOD-323F" package. (e.g.: BAT42FWS,.....,BAT43FWS)

RATING AND CHARACTERISTIC CURVES (BAT42WS, BAT43WS, BAT54WS)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

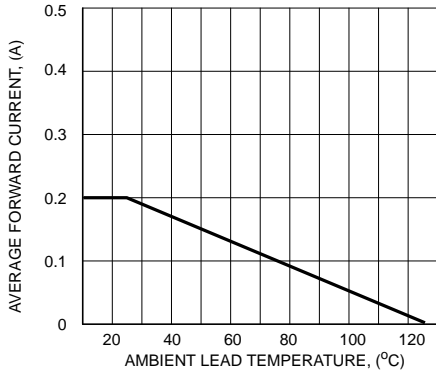


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

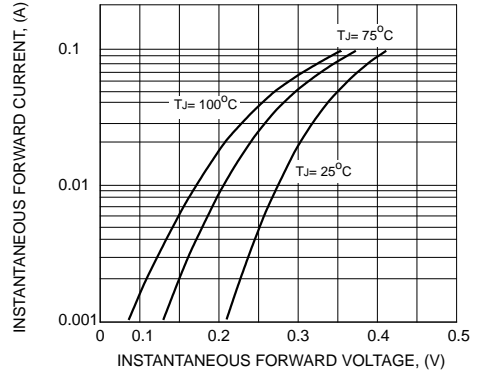


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

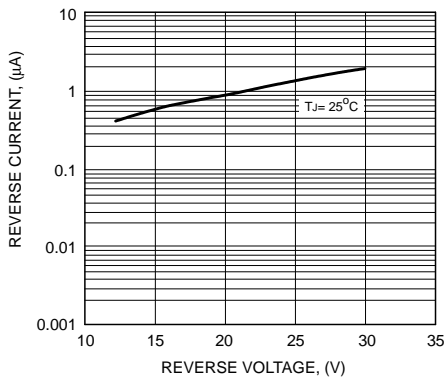


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

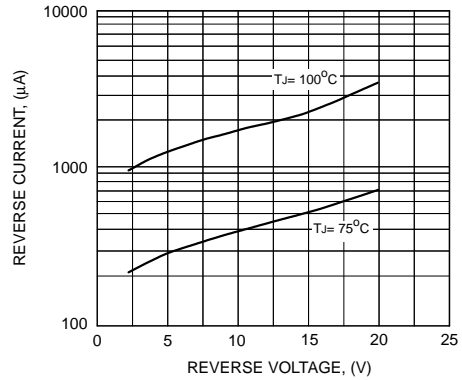


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

