



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

	<h3>DC COMPONENTS CO., LTD.</h3> <p>RECTIFIER SPECIALISTS</p>	<p>BAT42WS BAT43WS BAT54WS</p>
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TECHNICAL SPECIFICATIONS OF SMALL SIGNAL SCHOTTKY BARRIER DIODES VOLTAGE - 30 Volts CURRENT - 0.2 Amperes

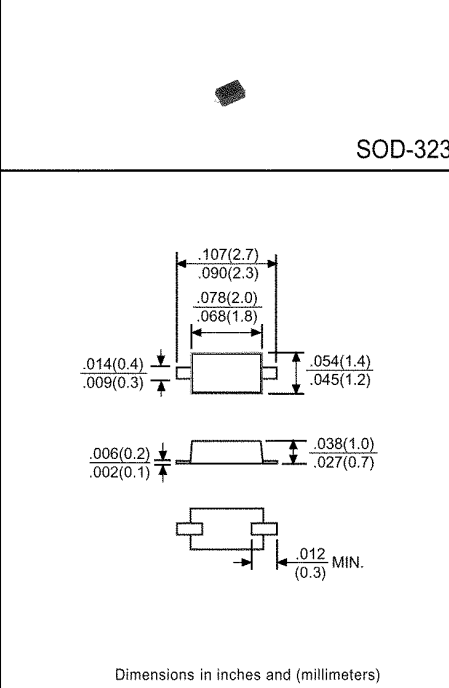
FEATURES

- * 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.

SOD-323



Dimensions in inches and (millimeters)

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%.

	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 TA=75°C	I _O	0.2			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	4.0		0.6	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 at Rated DC Blocking Voltage	I _R	0.5		2.0	μAmps
		@TA = 25°C		@TA = 100°C	
		100		500	
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.



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RATING AND CHARACTERISTIC CURVES (BAT42WS, BAT43WS, BAT54WS)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

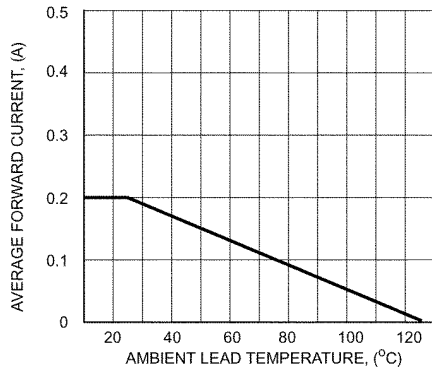


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

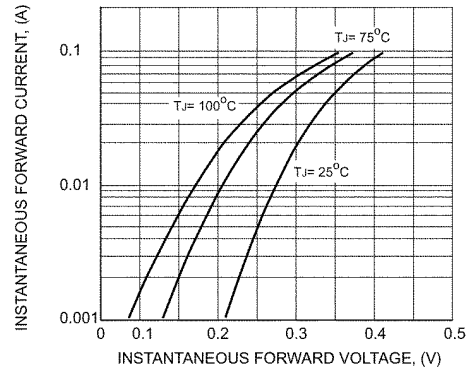


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

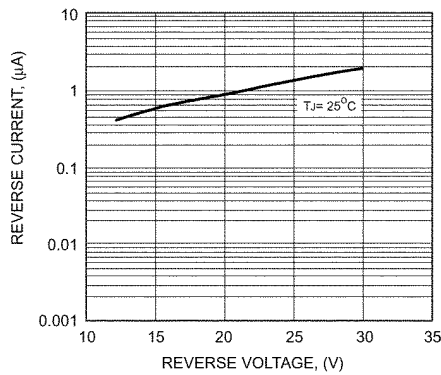


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

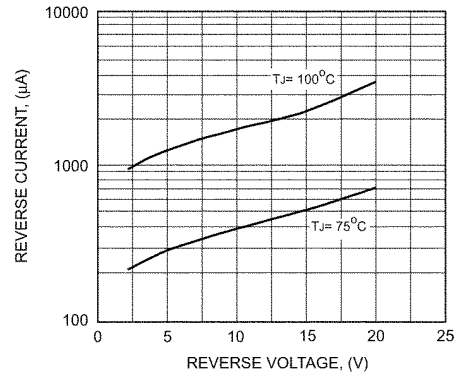


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

