



SMALL SIGNAL SCHOTTKY BARRIER DIODES

FEATURES:

- Low Forward Voltage drop
- Fast Switching
- Ultra-small Surface Mount Package

MECHANICAL DATA

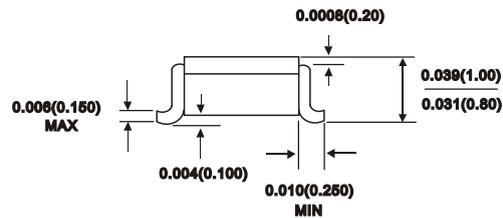
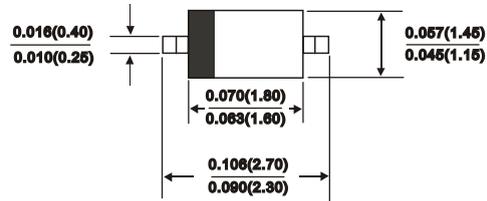
Case : SOD-323 plastic

Polarity : Cathode band

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

Weight : 0.004 grams

SOD-323



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

Characteristic	Symbol	BAT42WS	BAT43WS	Units
Maximum recurrent peak reverse voltage	V_{RRM}	30	30	Volts
Maximum RMS voltage	V_{RMS}	21	21	Volts
Maximum DC blocking voltage	V_{DC}	30	30	Volts
Maximum average forward rectified current at $T_a=25^\circ C$	$I_{(AV)}$	0.1		Amps
Peak forward surge current 10ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	4		Amps
Maximum instantaneous forward voltage	V_F	0.40 0.65	0.33 0.45	Volts
Power dissipation	P_D	200		mW
Maximum DC reverse current at $V_R=25V$	I_R	0.5 100		μA
Minimum reverse breakdown voltage	$V_{(BR)R}$	30		Volts
Typical reverse recovery time (NOTE 1)	T_{RR}	5.0		nS
Total capacitance (NOTE 3)	C_T	10		P_F
Operating and Storage temperature range	T_J, T_{Stg}	-65to+125		$^\circ C$

NOTES:

(1) Reverse Recovery Test CONDITION : $I_F = I_R = 0.01A, I_{RR} = 0.25A$

(3) $V_R = 1.0V, f = 1.0MHZ$



RATINGS AND CHARACTERISTIC CURVES

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

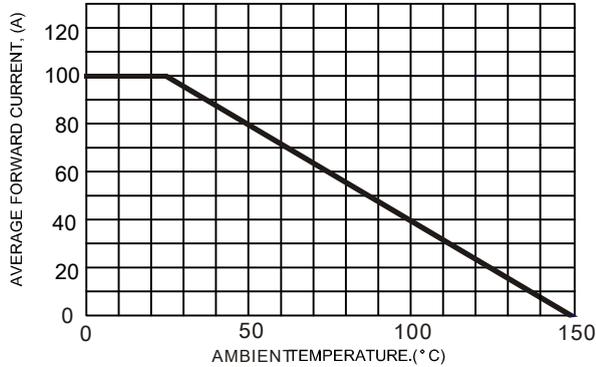


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

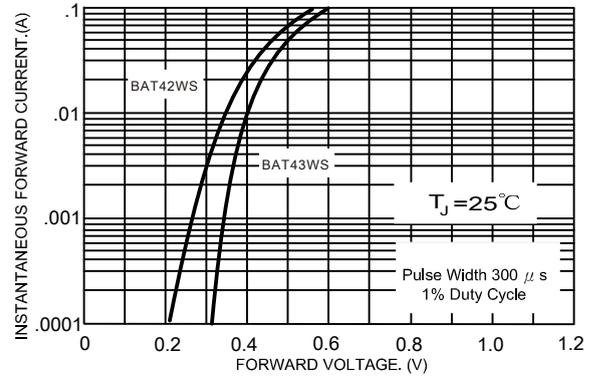


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

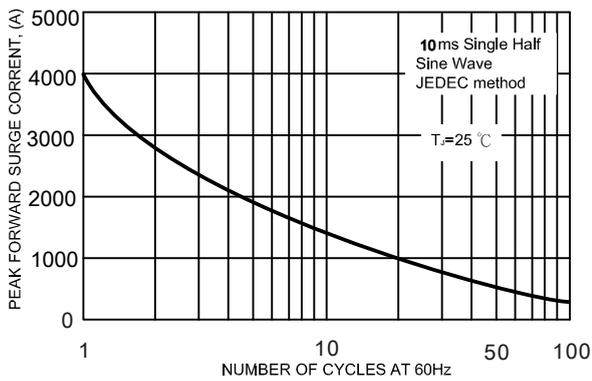


FIG.5- TYPICAL REVERSE CHARACTERISTICS

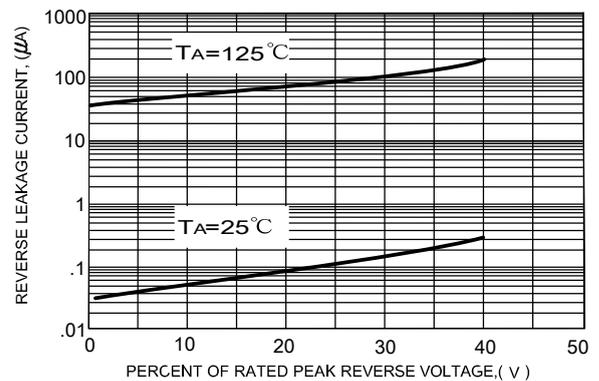
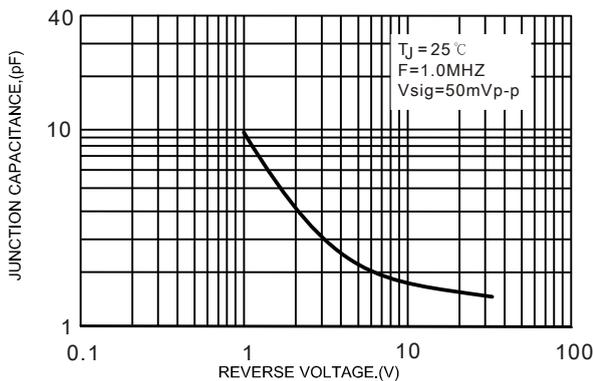


FIG.4- TYPICAL JUNCTION CAPACITANCE





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