



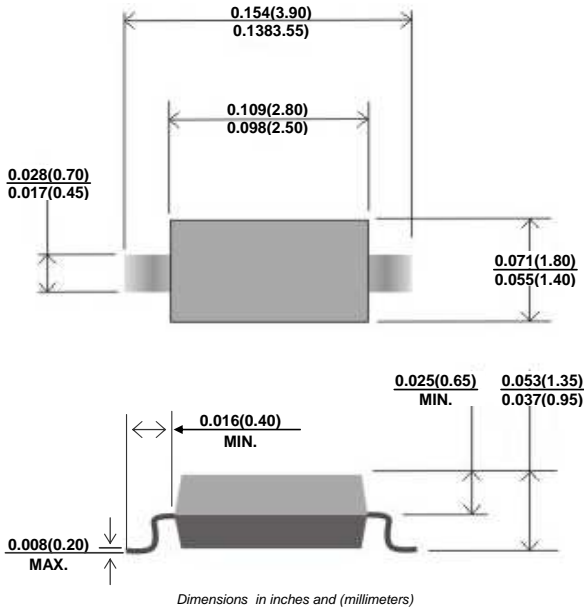
BAT42W / BAT43W

SURFACE MOUNT SCHOTTKY BARRIER

Reverse Voltage - 30 Volts Forward Current - 0.2 Ampere

SOD-123

FEATURES



- ◆ Low turn-on voltage
- ◆ Fast switching
- ◆ PN Junction Guard Ring for Transient and ESD Protection.
- ◆ In compliance with EU RoHS 2002/95/EC directives

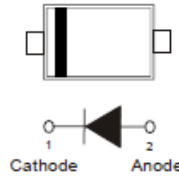
MECHANICAL DATA

Case: JEDEC SOD-123, Molded plastic

Terminals: Solderable per MIL-STD-750 Method 2026

Approx. Weight: 0.01 gram

Polarity: Color band denotes cathode end



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOLS	BAT42W	BAT43W	UNITS
Marking Code	—	L2	L3	—
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	30		Volts
Maximum RMS Reverse Voltage	V_{RMS}	21		Volts
Maximum DC Blocking Voltage	V_{DC}	30		Volts
Maximum Average Forward Current at $T_A=25^\circ\text{C}$	$I_{F(AV)}$	0.2		Amp
Peak Forward Surge Current, 1.0ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	4.0		Amps
Maximum Instantaneous Forward Voltage	V_F	0.4V@ $I_F=10\text{mA}$ 1.0V@ $I_F=200\text{mA}$	0.33V@ $I_F=2.0\text{mA}$ 1.0V @ $I_F=200\text{mA}$	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.5		μA
Junction Capacitance :at $V_R=1\text{V}$	C_J	10		pF
Typical Thermal Resistance	$R_{\theta JA}$	635		$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +125		$^\circ\text{C}$

Note : 1.CJ at $V_R=1$, $f=1\text{MHz}$

2.Mounted on FR-4 board with recommended pad layout



BAT42W / BAT43W

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD FORWARD CHARACTERISTIC

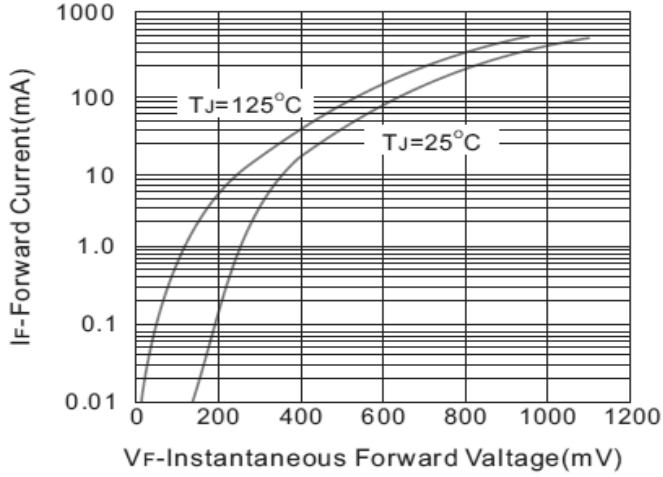


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

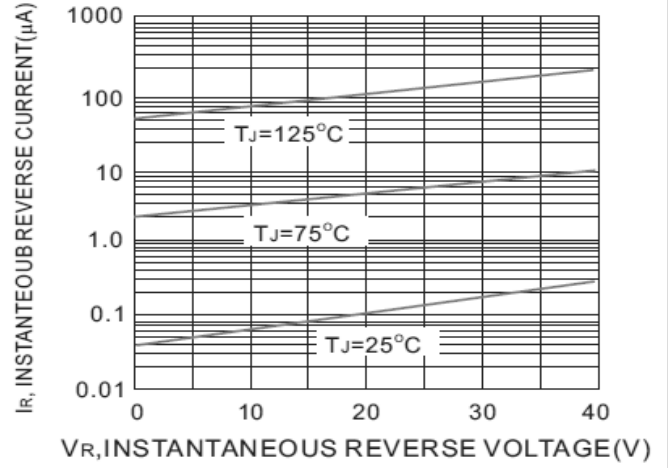


FIG. 3-TYPICAL JUNCTION CAPACITANCE

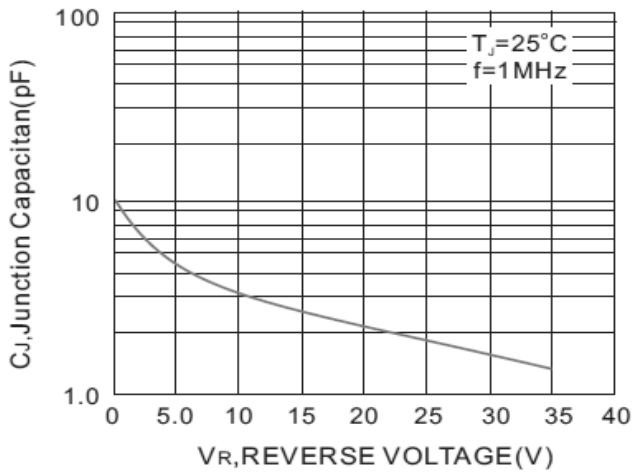
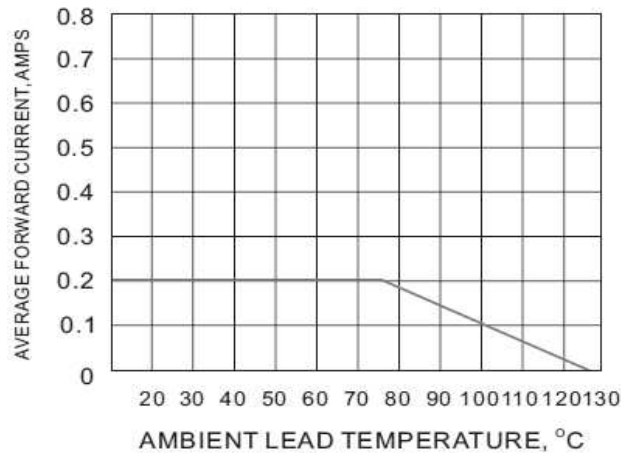


FIG. 4-TYPICAL DERATING CURVE



SOD-123 PACKAGE MOUNTING PAD LAYOUT

UNIT: inch(mm)

