SURFACE MOUNT SCHOTTKY BARRIER DIODE

BAT42W AND BAT43W

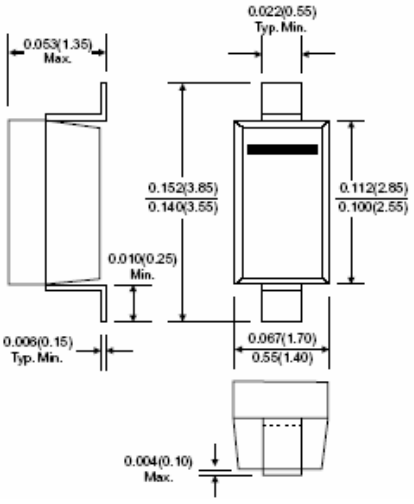
VOLTAGE RANGE **75 Volts**
CURRENT **150 mA**

FEATURES

- Fast Switching speed
- General purpose switching applications

MECHANICAL DATA

- Case: SOD-123
- Terminals: Solderable per MIL-STD-202 Method 208C
- Polarity: Color band denotes cathode end
- Weight: 0.00035 ounce, 0.01 gram, approx.



SOD-123

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25^{O}C ambient temperature unless otherwise specified

	SYMBOLS	BAT42W	BAT43W	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RM}	30		Volts
Forward Continuous Current	I_{FM}	200		mA
Peak Repetitive Forward Current	I_{FRM}	500		mA
Non-Repetitive Peak Forward Aurge Current @ T = 10 mS	I_{FSM}	4.0		Amps
Maximum Forward Voltage @ I_F = 200mA I_F = 10mA I_F = 50mA I_F = 2.0mA I_F= 15mA	V_F	1.0 0.40 0.65	1.0 0.33 0.45	Volts
Maximum Leakage Current, (Note 1) @ V_R = 25V V_R = 25, T_J = 100^{O}C	I_R	500 100		nA µA
Maximum Reverse Recovery Time I_F = 10mA, I_R=10mA, I_{RR} = 1mA, R_L = 100Ω	t_{rr}	4		nS
Power dissipation (Note 1)	P_{TOT}	200		mW
Typical Junction Capacitance , V_F = 1V, f = 1MHz	C_J	10		pF
Typical Thermal Resistance	$R_{\theta JA}$	300		^{O}C/W
Operating Junction Temperature Range	T_J	(-55 to +125)		^{O}C
Storage Temperature Range	T_{STG}	(-55 to +150)		^{O}C

Notes:

1. Valid provided terminals are kept at ambient temperature

RATINGS AND CHARACTERISTIC CURVES BAT42W AND BAT43W

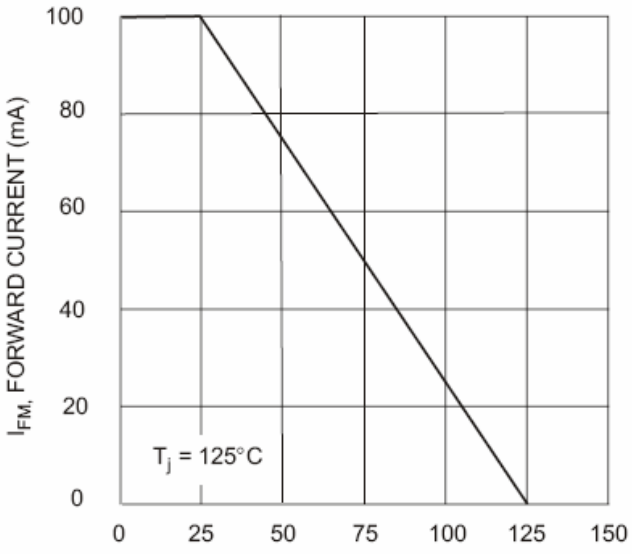


Fig. 1 Forward Current Derating Curve

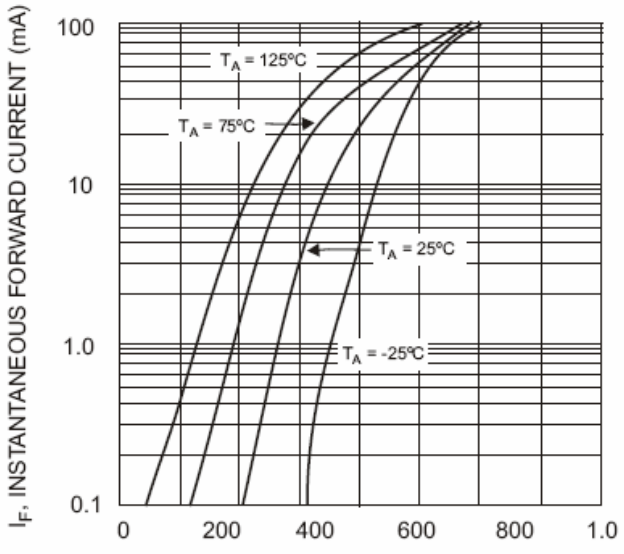


Fig. 2 Typical Forward Characteristics

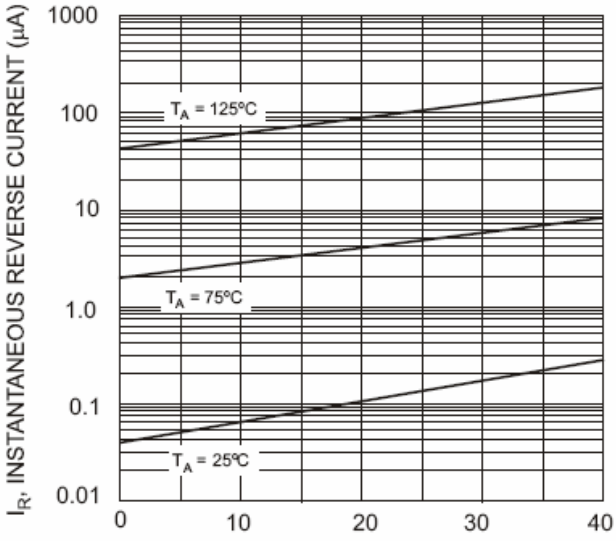


Fig. 3 Typical Reverse Characteristics

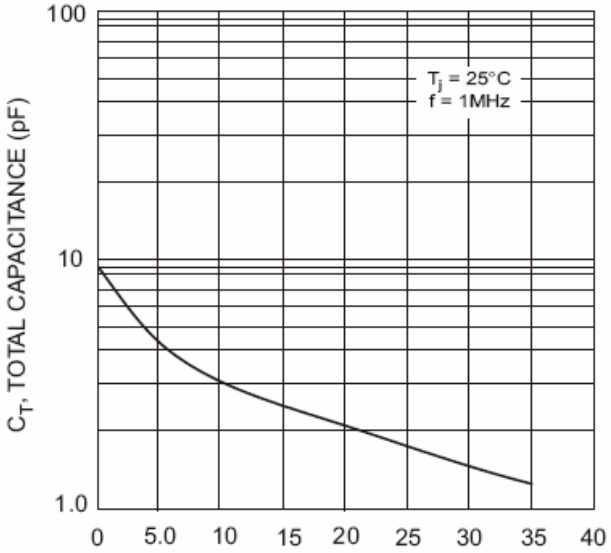


Fig. 4 Total Capacitance vs. Reverse Voltage