



DUAL SURFACE MOUNT SWITCHING DIODE

BAV99

VOLTAGE RANGE
CURRENT

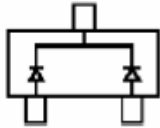
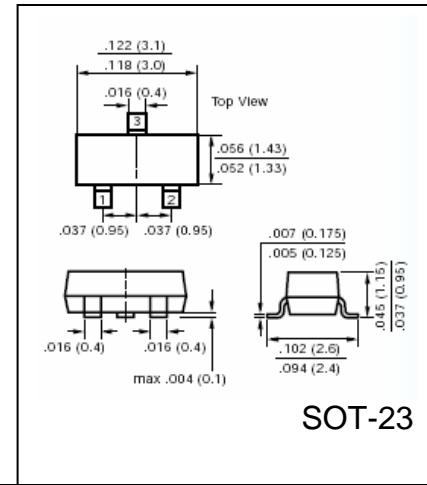
75 Volts
300 mAmps

FEATURES

- High speed switching
- Guard ring construction for transient protection
- Low reverse leakage
- High Temperature soldering guaranteed:
260°C / 10 second, 0.375" (9.5mm) lead length

MECHANICAL DATA

- Case: SOT-23 molded plastic
- Lead: Terminal, solderable per MIL-STD-202 Method 208
- Polarity: see pin out below
- Weight: 0.0045 ounce, 0.008gram



Pin out

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

	SYMBOLS		UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	75	Volts
Forward Continuous Current (Note 1)	I_F	300	mA
Non-repetitive Peak Forward Surge Current @ $T_p \leq 1.0 \mu\text{Sec}$ $T_F \leq 1.0 \mu\text{Sec}$	I_{FSM}	2.0 1.0	Amps
Maximum Forward Voltage @ 1.0mA 10mA 50mA 150mA	V_F	0.715 0.0855 1.0 1.25	Volts
Maximum Leakage Current, (Note 1) @ $V_R = 75V$ $V_R = 75V, T_J = 150^\circ\text{C}$ $V_R = 25V, T_J = 150^\circ\text{C}$	I_R	2.5 50 30	μA
Maximum Reverse Recovery Time $I_F = 10\text{mA}, I_R = 10\text{mA}, I_{RR} = 1\text{mA}, R_L = 100\Omega$	t_{rr}	4	nS
Power dissipation (Note 1)	P_{TOT}	200	mW
Typical Junction Capacitance, $V_F = 1V, f = 1\text{MHz}$	C_J	2	pF
Typical Thermal Resistance	$R_{\theta JA}$	355	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	(-55 to +125)	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	(-55 to +150)	$^\circ\text{C}$

Notes:

1. Valid provided leads kept at ambient temperature



RATINGS AND CHARACTERISTIC CURVES BAV99

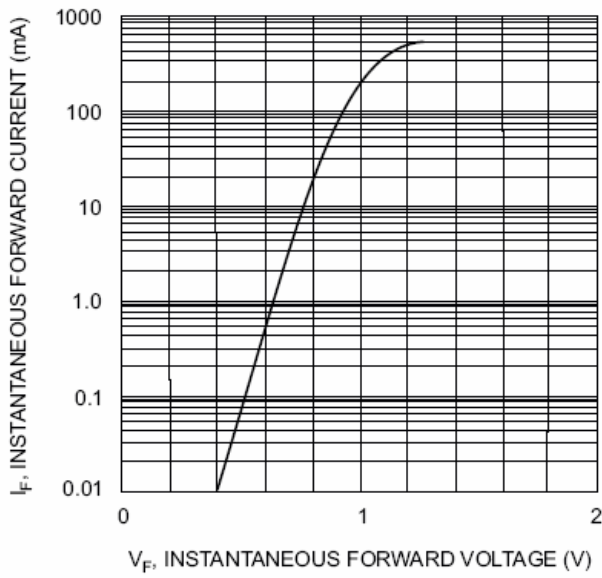


Fig. 1 Forward Characteristics

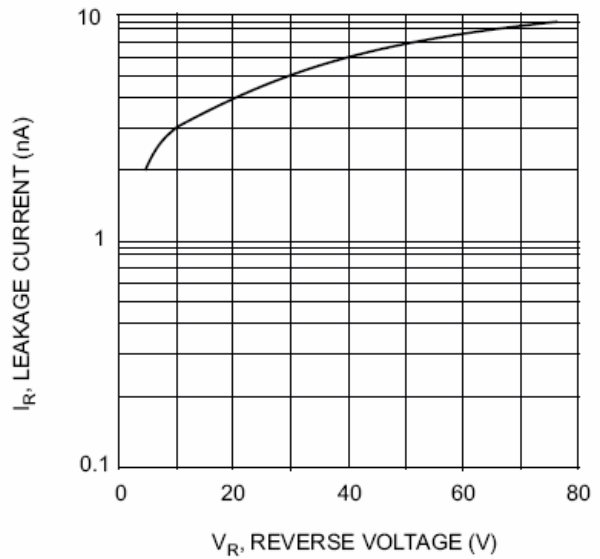


Fig. 2 Typical Leakage Current vs Reverse Voltage

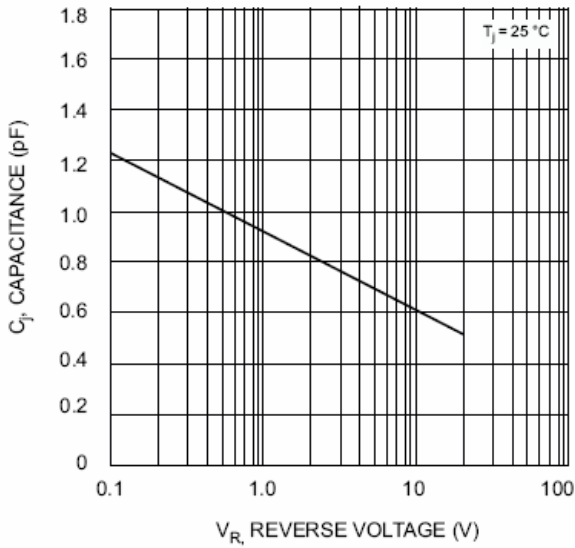


Fig. 3 Typical Junction Capacitance vs Reverse Voltage