

SMALL SIGNAL DIODE

VOLTAGE RANGE 75 Volts CURRENT 150mAmpere

FEATURES

- * Compact surface mount with same foot print as mini-melf
- * High Breakdown Voltage
- * Fast Switching Speed
- * 400mW Power Dissipation
- * General Purpose Switching Applications
- * High Conductance

MECHANICAL DATA

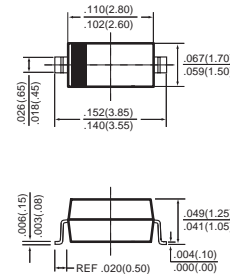
- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.01 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.



SOD-123



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	BAV16W	UNITS
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	Volts
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	75	Volts
Maximum Working Peak reverse Voltage	V _{RWM}		
Maximum DC Blocking Voltage	V _R		
Maximum RMS Voltage	V _{RMS}	53	Volts
Maximum Forward Continuous Current	I _{FM}	300	mAmps
Maximum Average Forward Rectified Current	I _O	150	mAmps
Non-Repetitive Peak Forward Surge Current	I _{FSM}	@t=1.0uS	2.0
		@t=1.0S	1.0
Typical Reverse Recovery Time (Note 1)	T _{rr}	4	nS
Typical Junction Capacitance (Note 2)	C _J	2	pF
Maximum Power Dissipation (Note 3)	P _D	400	mW
Typical Thermal Resistance	R _{θJA}	315	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 150	°C

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	BAV16W	UNITS
Maximum Instantaneous Forward Voltage	V _F	@IF=1.0mA	0.715
		@IF=10mA	0.855
		@IF=50mA	1.0
		@IF=150mA	25
Maximum Instantaneous Reverse Current	I _R	@VR=20V, T _J =25°C	1.25
		@VR=75V, T _J =25°C	1.0
		@VR=25V, T _J =150°C	30
		@VR=75V, T _J =150°C	50

- NOTES : 1. Measured at I_F=I_R=10mA, I_{RR}=0.1I_R And R_L=100 Ω
2. Measured at 1MHz and applied reverse voltage of 0 volts.
3. Part mounted on FR-4 PC board with minimum recommended pad layout.

RATING AND CHARACTERISTICS CURVES (BAV16W)

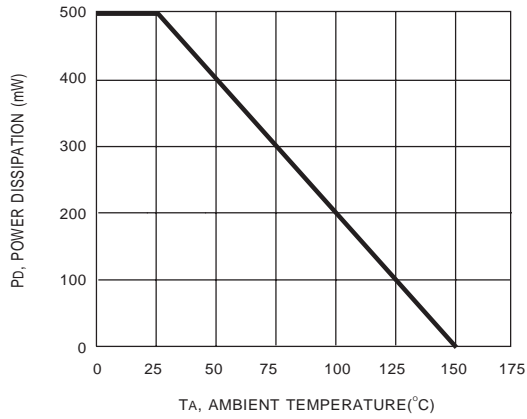


FIG.1 FORWARD DERATING CURVE

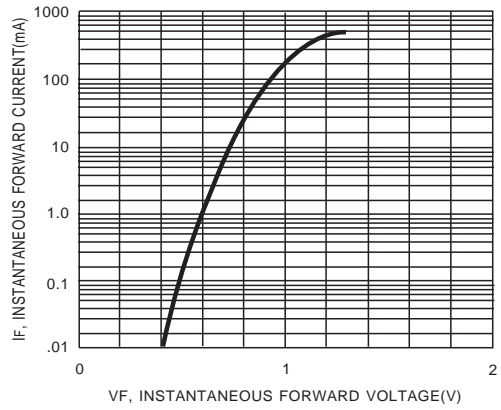


FIG.2 FORWARD CHARACTERISTICS

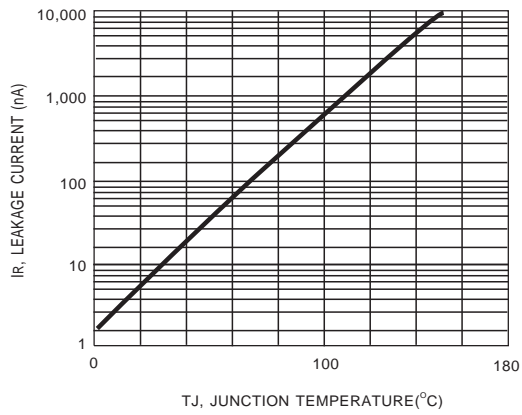


FIG.3 LEAKAGE CURRENT VS. JUNCTION TEMPERATURE

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