BAV16WS, BAV19WS, BAV20WS, BAV21WS

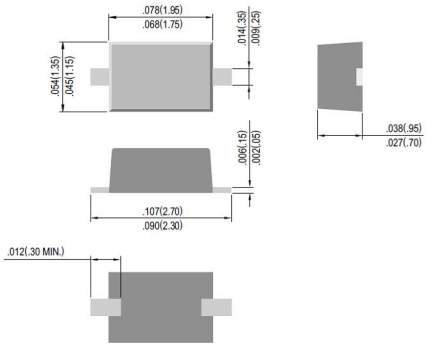
Surface Mount Switching Diodes

Voltage 75 to 200 Volts Power 200 mWatts

FEATURES

- Fast switching speed.
- Electrically identical to standerd JEDEC
- High Conductance
- Surface mount package ideally suited for automatic insertion

SOD-323



MECHANICAL DATA

- Case: SOD-323
- Terminals: Solderable per MIL-STD-202, Method 208
- Approx. weight: 0.008 gram
- Marking: A6, A8, A80, A82

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%.

PARAMETER	SYMBOL	BAV16WS	BAV19WS	BAV20WS	BAV21WS	UNITS
Reverse Voltage	V_R	75	100	150	200	V
Peak Reverse Voltage	V_{RM}	100	120	200	250	V
Rectified Current (Average), Half Wave Rectification with Resistive Load and f >=50 Hz	I_O	250	200	200	200	mA
Peak Forward Surge Current, 1.0us single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	2	2.5	2.5	2.5	A
Power Dissipation Derate Above 25°C	P_{TOT}	200	200	200	200	mW
Maximum Forward Voltage @ I_F=100 mA	V_F	0.855	1.0	1.0	1.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage TJ= 25°C	I_R	1.0	0.1	0.1	0.1	μA
Typical Junction Capacitance(Notes1)	C_J	2.0	1.5	1.5	1.5	pF
Maximum Reverse Recovery (Notes2)	T_{RR}	6.0	50.0	50.0	50.0	ns
Maximum Thermal Resistance	$R_{\Theta JA}$	357				°C / W
Storage Temperature Range	T_J	-55 TO +125				°C

NOTE : 1. CJ at Reverse Voltage = 0. f=1MHz
2. From I_F=10mA to I_R=-3mA. V_R=6V. Load=100Ω

Characteristic and Rating Curve

Fig.1 Forward Voltage

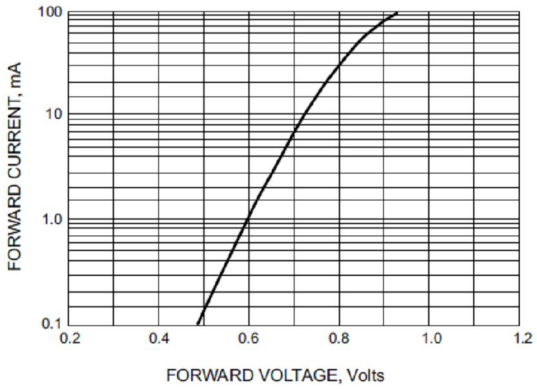


Fig.2 Leakage Current

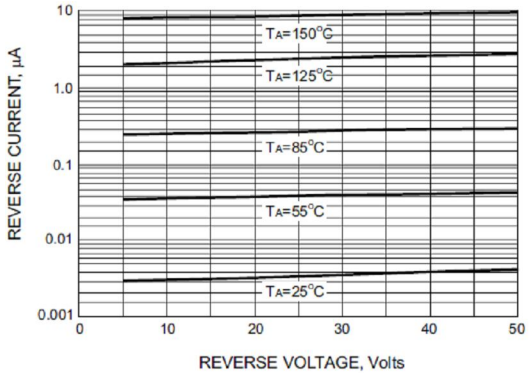
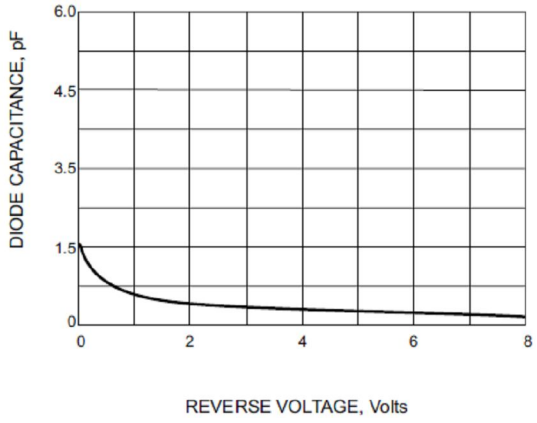
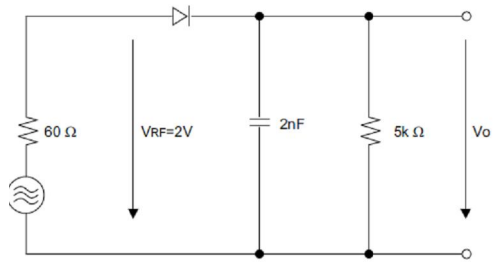


Fig.3 Typical Capaticance





RECTIFICATION EFFCIENCY MEASUREMENT CIRCUIT