



## SOD-123 Plastic-Encapsulate Diodes

### BAV19W/BAV20W/BAV21W

FAST SWITCHING DIODES

SOD-123



#### FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

MARKING: BAV19W: A8

BAV20W: T2

BAV21W: T3

#### Maximum Ratings and Electrical Characteristics, Single Diode @T<sub>A</sub>=25°C

Parameter	Symbol	BAV19W	BAV20W	BAV21W	Unit
Non-Repetitive Peak reverse voltage	V <sub>RM</sub>	120	200	250	V
Peak Repetitive Peak reverse voltage	V <sub>RRM</sub>				
Working Peak Reverse Voltage	V <sub>RWM</sub>	100	150	250	V
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage	V <sub>R(RMS)</sub>	71	106	141	V
Forward Continuous Current	I <sub>FM</sub>		400		mA
Average Rectified Output Current	I <sub>O</sub>		200		mA
Peak forward surge current @=1.0ms @=1.0s	I <sub>FSM</sub>		2.5 0.5		A
Repetitive Peak Forward Current	I <sub>FRM</sub>		625		mA
Power Dissipation	P <sub>d</sub>		250		mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>		500		°C/W
Storage temperature	T <sub>STG</sub>		-65~+150		°C

#### Electrical Ratings @T<sub>A</sub>=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V <sub>F1</sub>			1.0	V	I <sub>F</sub> =0.1A
	V <sub>F2</sub>			1.25		I <sub>F</sub> =0.2A
Reverse current	BAV19W BAV20W BAV21W	I <sub>R</sub>		0.1	μA	V <sub>R</sub> =100V
				0.1		V <sub>R</sub> =150V
				0.1		V <sub>R</sub> =200V
Capacitance between terminals	C <sub>T</sub>			5	pF	V <sub>R</sub> =0V,f=1MHz
Reverse Recovery Time	t <sub>rr</sub>			50	ns	I <sub>F</sub> =I <sub>R</sub> =30mA I <sub>rr</sub> =0.1X I <sub>R</sub> ,R <sub>L</sub> =100Ω

# Typical Characteristics

# BAV19W/BAV20W/BAV21W

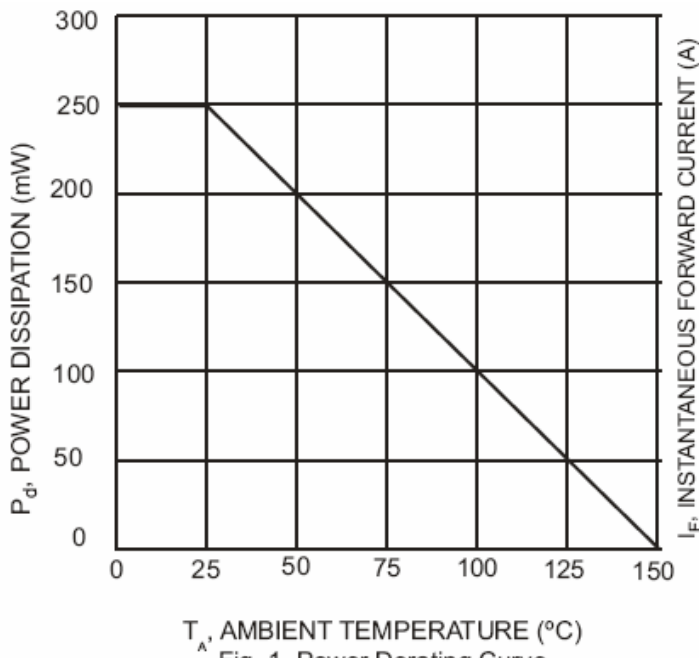


Fig. 1 Power Derating Curve

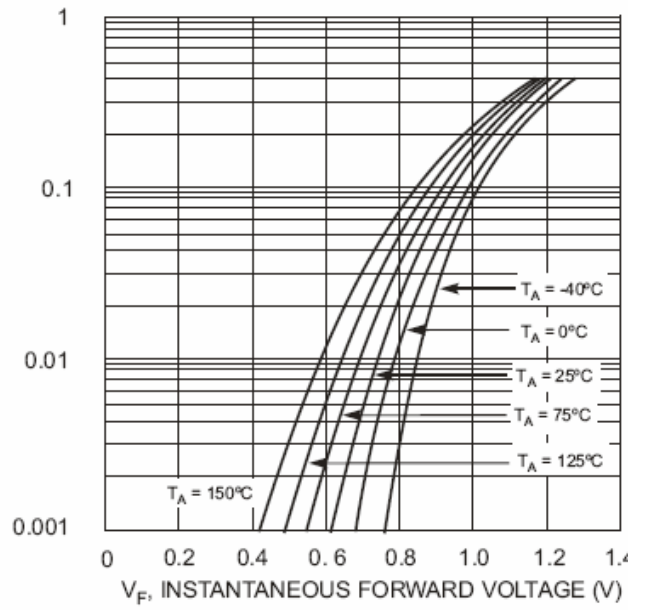


Fig. 2 Typical Forward Characteristics

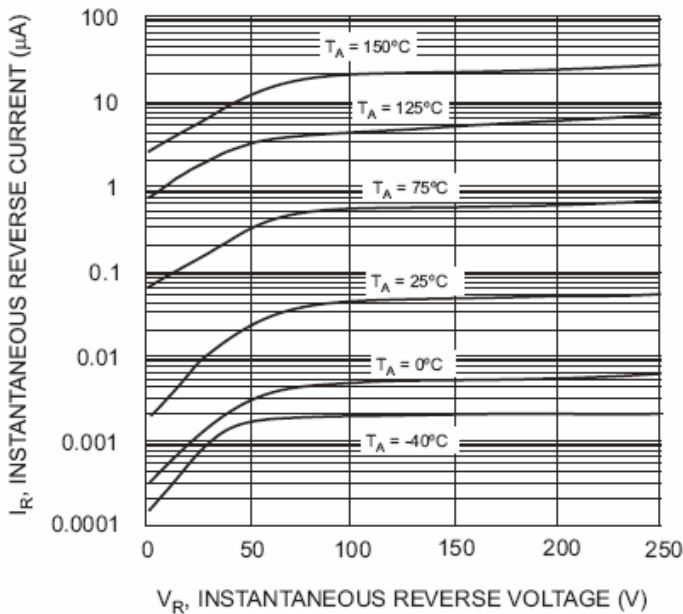


Fig. 3 Typical Reverse Characteristics

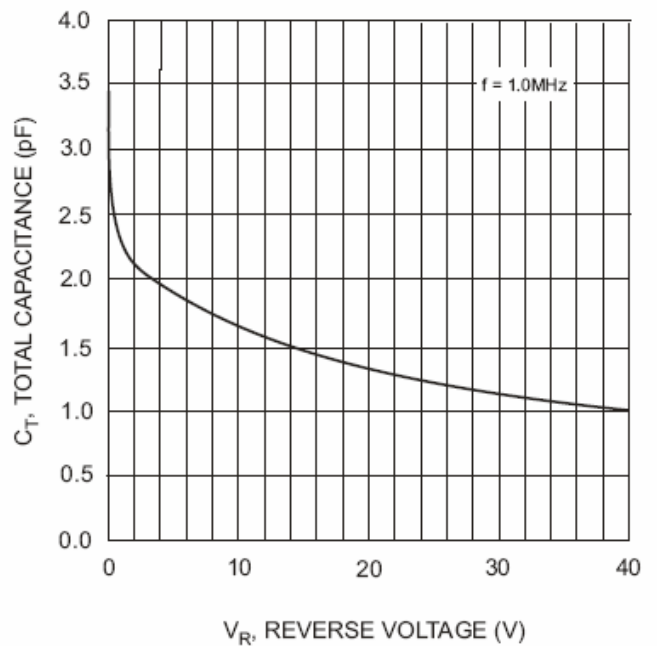


Fig. 4 Typical Capacitance vs. Reverse Voltage