

VII. Switching Diode

SMD Type (SOD-123)

BAV19W~BAV21W

(Package: SOD-123)

<p>FEATURES</p> <ul style="list-style-type: none"> • Fast switching speed. • Ideally suited for automated assembly processes. • For general purpose switching applications. • High conductance. <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case : Molded plastic, SOD-123 • Mounting position : Any • Polarity : Color band denotes cathode <p>DEVICE MARKING CODE</p> <ul style="list-style-type: none"> • BAV19W : A8 • BAV20W : T2 • BAV21W : T3 	<p>Case: SOD-123 Dimensions in millimeters</p>
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Ratings & Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	BAV19W	BAV20W	BAV21W	Unit	
Non-Repetitive peak reverse voltage	V_{RM}	120	200	250	Volts	
Peak repetitive reverse voltage	V_{RRM}	100	150	200	Volts	
Working peak reverse voltage	V_{RWM}					
DC reverse voltage	V_R					
RMS reverse voltage	$V_{R(RMS)}$	71	106	141	Volts	
Forward voltage (Max)	V_F		1.00 1.25		Volts	
		$I_F=100mA$				
		$I_F=200mA$				
Reverse breakdown voltage (Min) (@ $I_R=100\mu A$)	$V_{(BR)R}$	120	200	250	Volts	
Average rectified output current	I_o		200		mA	
Non-repetitive peak forward surge current	I_{FSM}		4.0		Amps	
		@ $t=1.0\mu s$				
Maximum reverse leakage current	I_R	$V_R=100V$	0.1	-	-	μA
		$V_R=150V$	-	0.1	-	
		$V_R=200V$	-	-	0.1	
Power dissipation	P_D		250		mW	
Junction capacitance (Max) $V_R=0V, f=1.0MHz$	C_j		5		PF	
Reverse recovery time (Max) $I_F=I_R=30mA, I_{RR}=0.1 \cdot I_R, R_L=100$	T_{rr}		50		ns	
Typical thermal resistance, junction to ambient air	R_{th-JA}		500		/W	
Operating and storage temperature range	T_j, T_{stg}		-65 to +150			

Ratings and Characteristic Curves of BAV19W/ BAV20W/ BAV21W

