

Features

- Silicon Epitaxial Planar Diodes
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

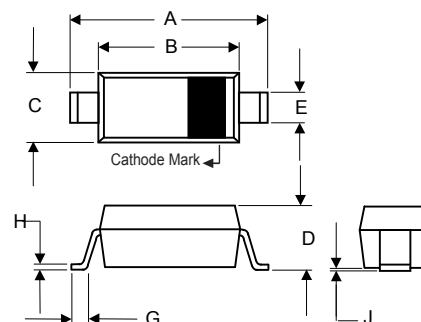
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 305°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Continuous Reverse Voltage
BAV19W	A8	120V	71V	100V
BAV20W	T2 / A80	200V	106V	150V
BAV21W	T3 / A82	250V	141V	200V

Average Forward Current	I_F	250mA	$T_A=25^\circ\text{C}$
Rectified Current (Average) Half Wave Rectification with Resist	$I_{F(AV)}$	200mA	$T_A=25^\circ\text{C}$
Repetitive Peak Forward Current	I_{FRM}	625mA	$f>50\text{Hz}, T_A=25^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	1.0A	$t<1\text{s}, T_J=25^\circ\text{C}$
Power Dissipation	P_{tot}	410mW	$T_A=25^\circ\text{C}$

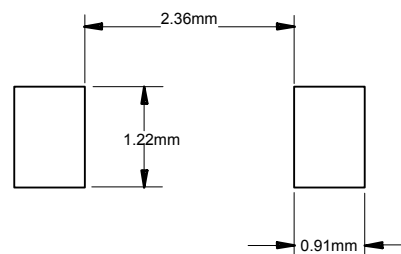
410mW Small Signal Diodes 120 to 250 Volts

SOD-123



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.140	0.152	3.55	3.85	
B	0.100	0.112	2.55	2.85	
C	0.055	0.071	1.40	1.80	
D	----	0.053	----	1.35	
E	0.018	0.026	0.45	0.65	
G	0.006	----	0.15	----	
H	----	0.010	----	0.25	
J	----	0.006	----	0.15	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F	$I_F=100\text{mA}$			1	V
		$I_F=200\text{mA}$			1.25	V
Dynamic Forward Resistance	r_f	$I_F=10\text{mA}$		5		Ω
Reverse Current	I_R	BAV19W $V_R=100\text{V}$			100	nA
		BAV20W $V_R=150\text{V}$			100	nA
		BAV21W $V_R=200\text{V}$			100	nA
		BAV19W $V_R=100\text{V}, T_J=100^\circ\text{C}$			15	μA
		BAV20W $V_R=150\text{V}, T_J=100^\circ\text{C}$			15	μA
		BAV21W $V_R=200\text{V}, T_J=100^\circ\text{C}$			15	μA
Junction Capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$		1.5		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=30\text{mA},$ $I_{rr}=0.1*I_R, R_L=100\Omega$			50	ns

* Pulse Test: Pulse Width 300 μsec , Duty Cycle 2%

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

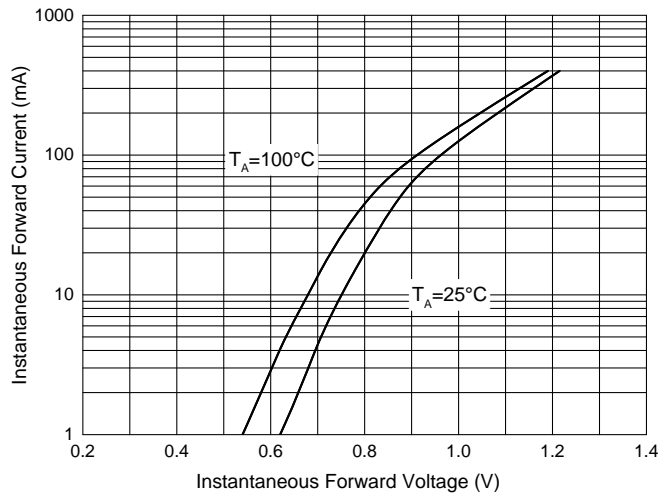


Fig. 2 - Typical Reverse Leakage Characteristics

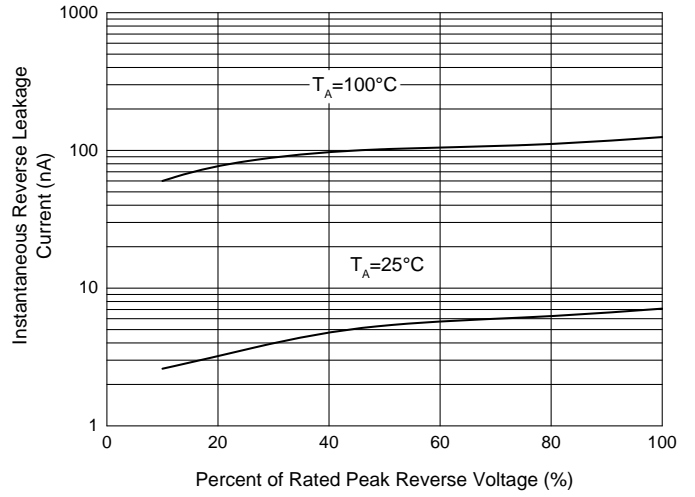
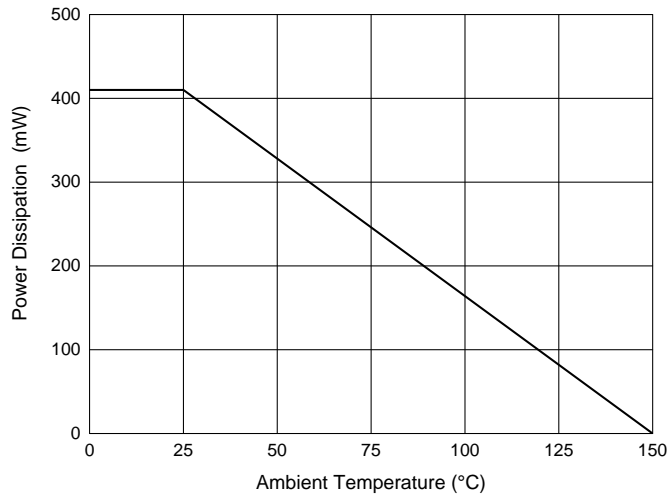


Fig. 3 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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