

**Features**

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Silicon Epitaxial Planar Diodes
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- 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

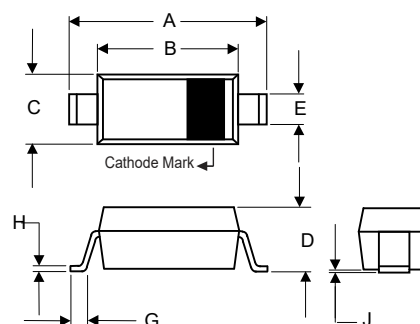
MCC Part Number	Device Marking
BAV19WHE3	A8
BAV20WHE3	T2
BAV21WHE3	T3

Parameter	Symbol	Value
Continuous Reverse Voltage	$V_R$	100V
BAV20WHE3		150V
BAV21WHE3		200V
Repetitive Peak Reverse Voltage	$V_{RRM}$	120V
BAV20WHE3		200V
BAV21WHE3		250V
Forward DC Current	$I_F$	250mA
Rectified Current (Average) Half Wave Rectification with Resist	$I_{F(AV)}$	200mA
Repetitive Peak Forward Current (f>50Hz)	$I_{FRM}$	625mA
Peak Forward Surge Current(t<1s)	$I_{FSM}$	1A
Power Dissipation	$P_{tot}$	410mW

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

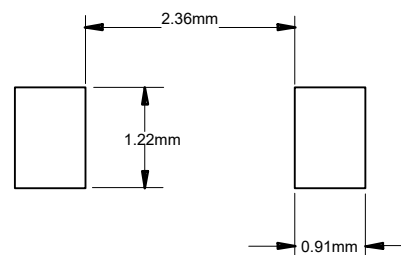
**410mW  
Small Signal  
Diodes  
120 to 250 Volts**

**SOD-123**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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		$V_F$	$I_F=100\text{mA}$			1.00	V
			$I_F=200\text{mA}$			1.25	V
Reverse Current	BAV19WHE3	$I_R$	$V_R=100\text{V}$			100	nA
			$V_R=100\text{V}, T_J=100^\circ\text{C}$			15	$\mu\text{A}$
	BAV20WHE3		$V_R=150\text{V}$			100	nA
			$V_R=150\text{V}, T_J=100^\circ\text{C}$			15	$\mu\text{A}$
	BAV21WHE3		$V_R=200\text{V}$			100	nA
			$V_R=200\text{V}, T_J=100^\circ\text{C}$			15	$\mu\text{A}$
Dynamic Forward Resistance		$r_f$	$I_F = 10\text{mA}$		5		$\Omega$
Total Capacitance		$C_{\text{tot}}$	$V_R = 0\text{V}, f = 1\text{MHz}$		1.5		pF
Reverse Recovery Time		$t_{\text{rr}}$	$I_F=I_R=30\text{mA},$ $I_{\text{rr}}=3.0\text{mA}, R_L=100\Omega$			50	ns

**Curve Characteristics**

Fig. 1 - Typical Instantaneous Forward Characteristics

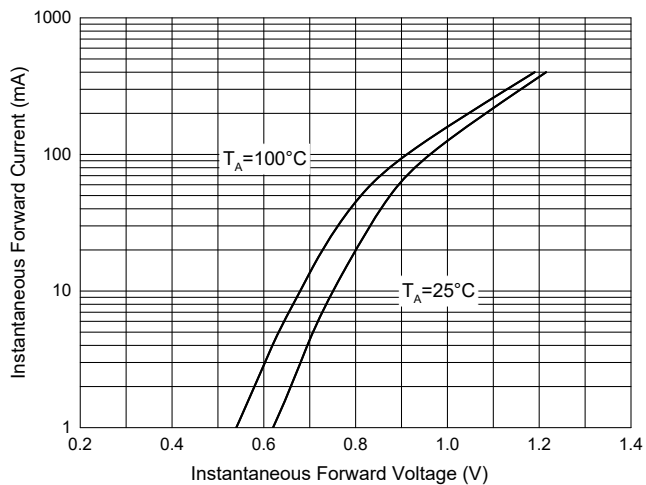


Fig. 2 - Typical Reverse Leakage Characteristics

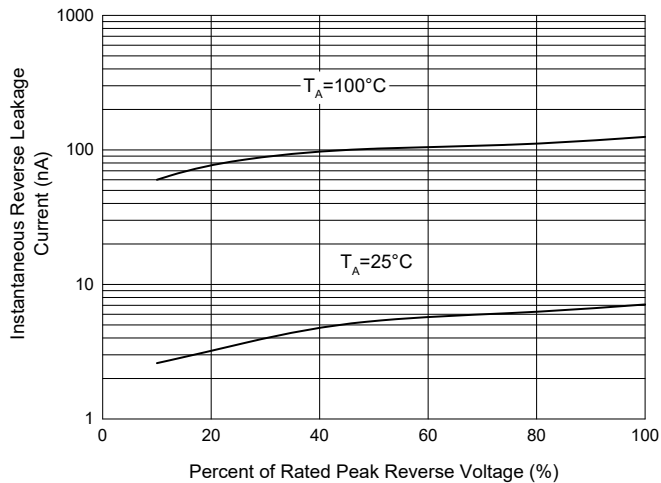
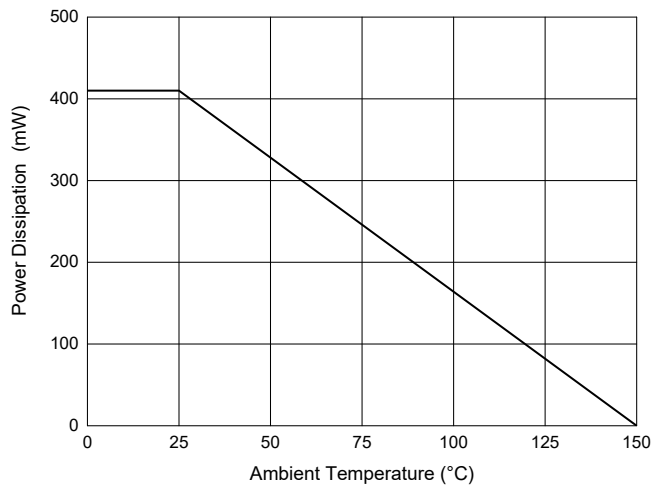


Fig. 3 - Power Derating Curve



## Ordering Information

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

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