

**Features**

- Low Leakage Current
- Fast Switching Speed
- High Reverse Breakdown Voltage
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings**

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 312.5°C/W Junction to Ambient

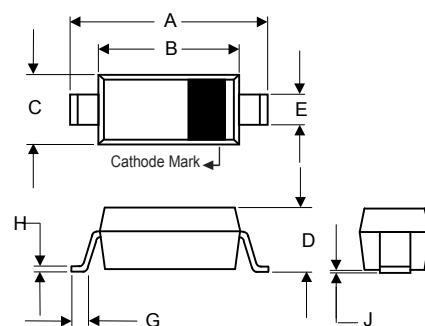
MCC Part Number	Device Marking
BAV3004W	4P

Parameter	Symbol	Value
DC Reverse Voltage	$V_R$	300V
Peak Repetitive Reverse Voltage	$V_{RRM}$	350V
RMS Reverse Voltage	$V_{R(RMS)}$	210V
Forward Continuous Current	$I_{FM}$	225mA
Repetitive Peak Forward Current	$I_{FRM}$	625mA
Peak Forward Surge Current (t=1s) (t=1μs)	$I_{FSM}$	1A 4A
Power Dissipation	$P_D$	400mW

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

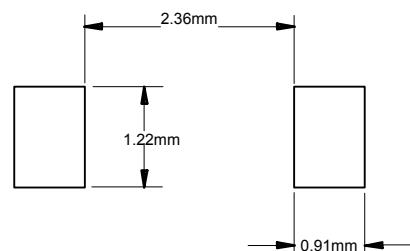
## 400mW Low Leakage Diodes

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
Reverse Breakdown Voltage	$V_{BR}$	$I_R=150\mu A$	350			V
Forward Voltage	$V_F$	$I_F=20mA$		0.78	0.87	V
		$I_F=100mA$		0.93	1	V
		$I_F=200mA$		1.03	1.25	V
Reverse Current	$I_R$	$V_R=240V$		30	100	nA
		$V_R=240V, T_J=150^\circ C$		35	100	$\mu A$
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$		1	5	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=30mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$			50	ns

\* Pulse Test: Pulse Width 300  $\mu sec$ , Duty Cycle 2%

## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

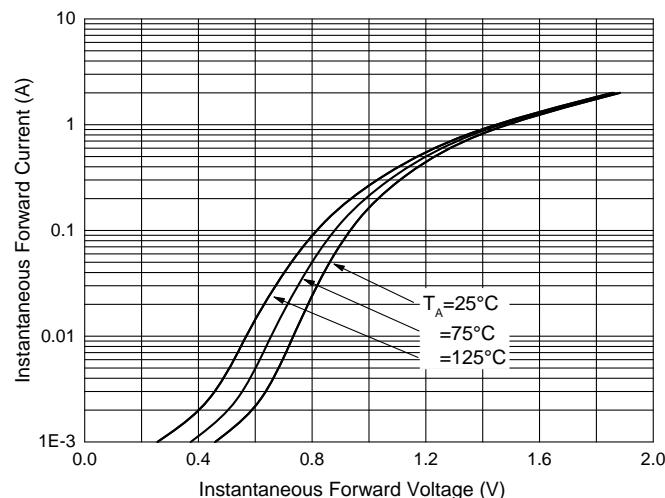


Fig. 2 - Typical Reverse Leakage Characteristics

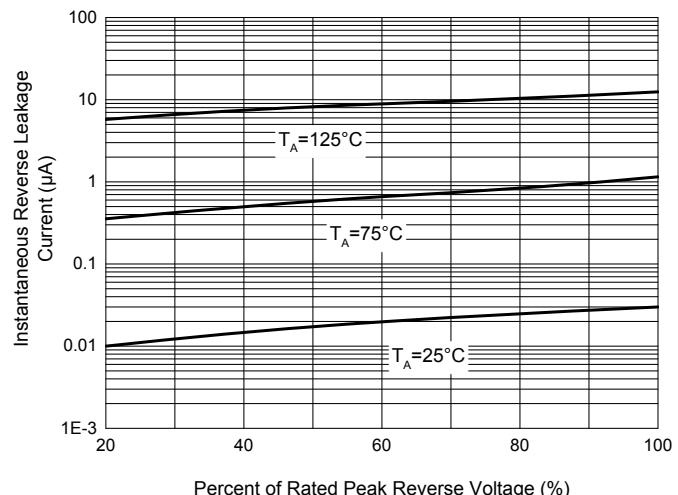
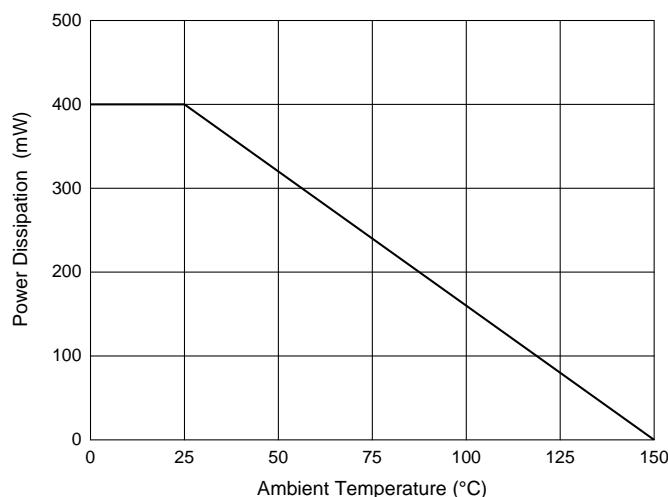


Fig. 3 - Power Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel
Part Number-13P	Tape&Reel: 10Kpcs/Reel

For packaging details, go to our website at <https://www.mccsemi.com/pdf/productpackaging/SOD-123%20Package.pdf>

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