



THE DATASHEET OF BAT46WHE3-TP



Features

- AEC-Q101 Qualified
- High Breakdown Voltage
- Low Turn-on Voltage
- Guard Ring Construction For Transient Protection
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance(Note 2): 500°C/W Junction to Ambient Air

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
BAT46WHE3	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

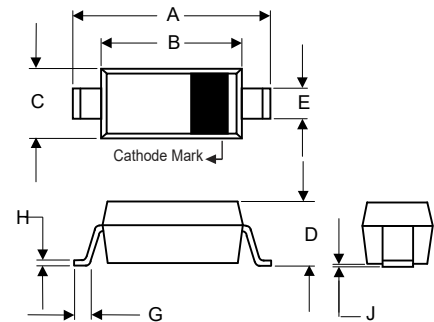
Forward DC Current	I_F	150mA	
Average Rectified Output Current	I_O	75mA	
Repetitive Peak Forward Current	I_{FRM}	350mA	$t_p < 1.0s$, Duty Cycle < 50%
Forward Surge Forward Current	I_{FSM}	750mA	$t_p = 10ms$
Power Dissipation	P_D	200mW	
Reverse Breakdown Voltage	$V_{(BR)R}$	100V(Min)	$I_R = 100\mu A_{dc}$
Forward Voltage	V_F	0.25V(Max) 0.45V(Max) 1.0V(Max)	$I_F = 0.1mA$ $I_F = 10mA$ $I_F = 250mA$
Leakage Current	I_R	0.5 μA (Max) 1 μA (Max) 2 μA (Max)	$V_R = 10V$ $V_R = 50V$ $V_R = 75V$
Typical Junction Capacitance	C_T	18pF(Typ) 8pF(Typ)	$V_R = 0, f = 1.0MHz$ $V_R = 2V, f = 1.0MHz$
Maximum Reverse Recovery Time	t_{rr}	3.0ns	$I_F = I_R = 10mA$, $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

Note:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Device mounted on an 1inchx1inchx2oz copper FR4 PCB, single-sided copper, reference footprint

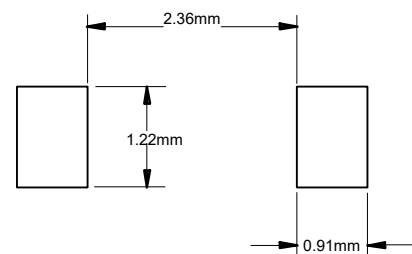
**200mW
Schottky Diode
100 Volts**

SOD-123

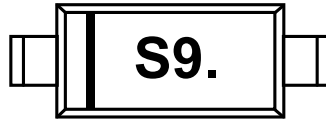


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.140	0.152	3.55	3.85	
B	0.100	0.112	2.55	2.85	
C	0.055	0.071	1.40	1.80	
D	----	0.053	----	1.35	
E	0.018	0.026	0.45	0.65	
G	0.006	----	0.15	----	
H	----	0.010	----	0.25	
J	----	0.006	----	0.15	

Suggested Solder Pad Layout



Internal Structure and Marking Code



Curve Characteristics

Fig. 1 - Forward Characteristics

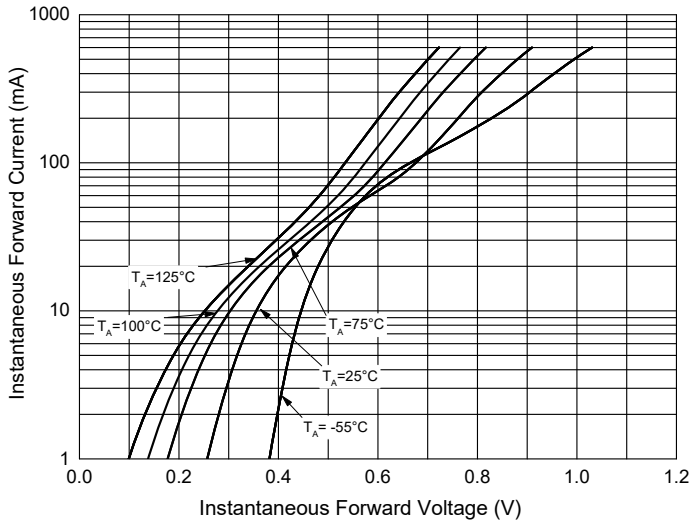


Fig. 2 - Reverse Characteristics

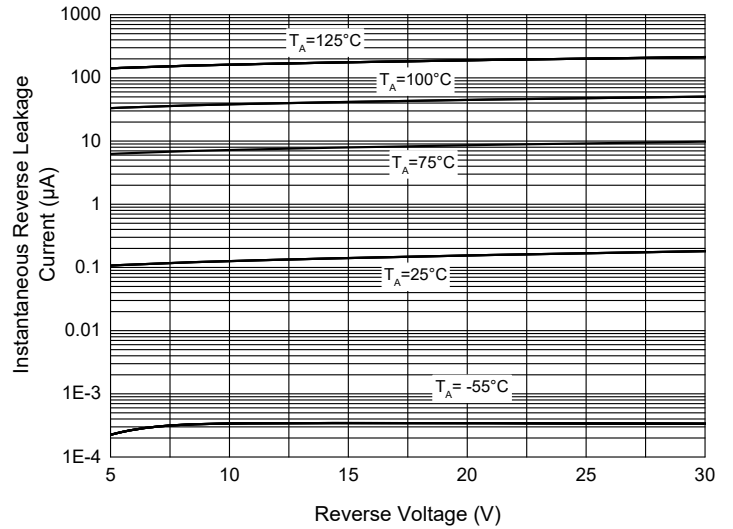


Fig. 3 - Capacitance Characteristics

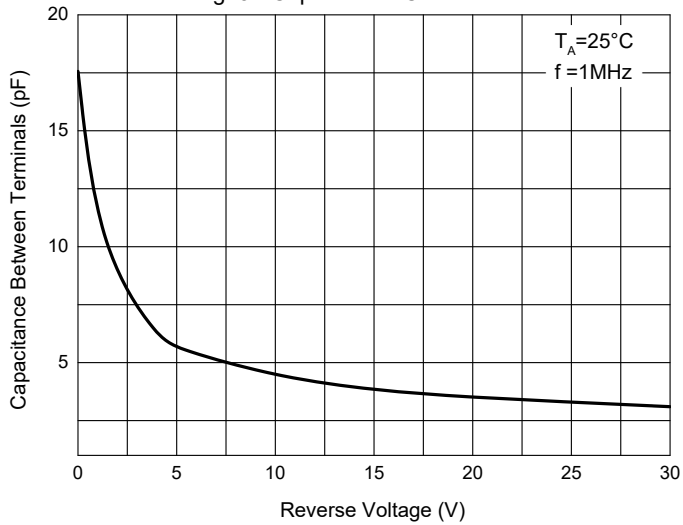
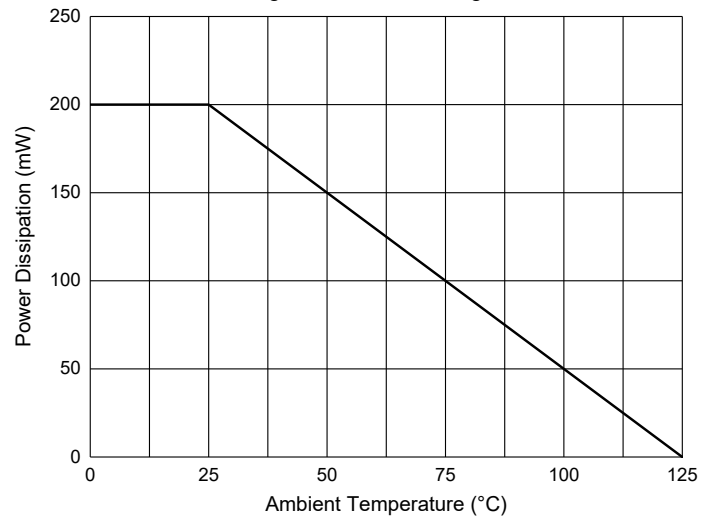


Fig. 4 - Power Derating Curve



Ordering Information

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

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