

Features

- Low Turn-on Voltage and Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Halogen Free. "Green" Device (Note 1)
- 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 +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 200°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
BAT54W	L9	30V	21V	30V

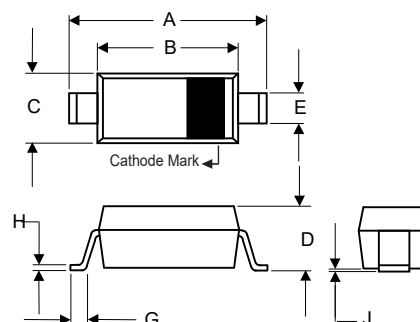
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	200mA	
Peak Forward Surge Current	I_{FSM}	600mA	$t=8.3ms$
Power Dissipation	P_d	500mW	$T_J = 25\text{ }^\circ\text{C}$
Maximum Forward Voltage	V_F	240mV 320mV 400mV 500mV 1000mV	$I_F=0.1mA$ $I_F=1.0mA$ $I_F=10mA$ $I_F=30mA$ $I_F=100mA$
DC Reverse Current At Rated DC Blocking Voltage	I_R	2.0 μ A	$V_R = 25V$
Reverse Breakdown Voltage	V_{BR}	>30V	$I_R=100\mu A$
Typical Junction Capacitance	C_T	10pF	Measured at 1.0MHz, $V_R=0.0V$
Maximum Reverse Recovery Time	t_{rr}	5ns	$I_F=10mA$, $I_R=10mA\sim 1.0mA$, $R_L=100\Omega$.

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

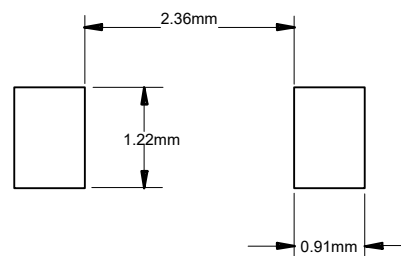
500mW, 30Volt Schottky Barrier Diode

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



Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

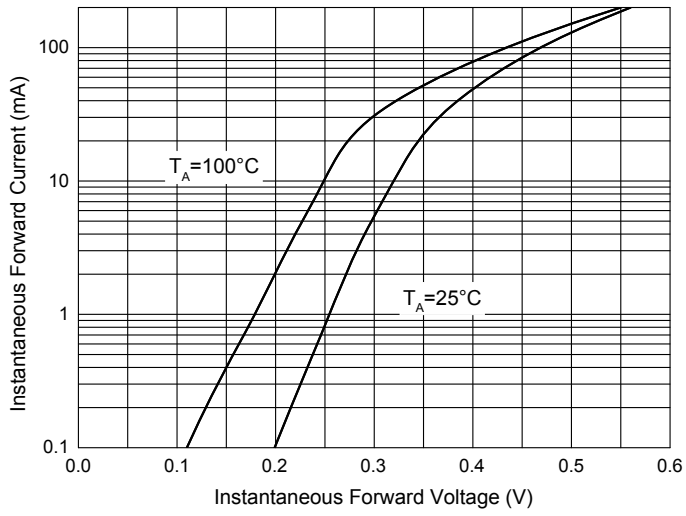


Fig. 2 - Typical Reverse Leakage Characteristics

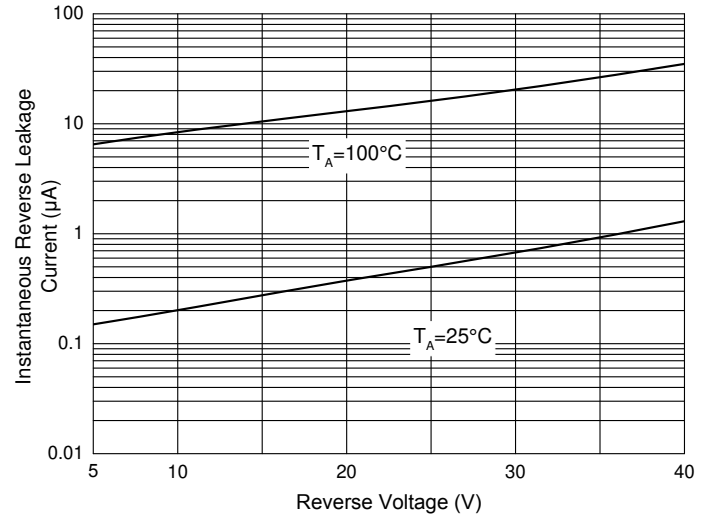
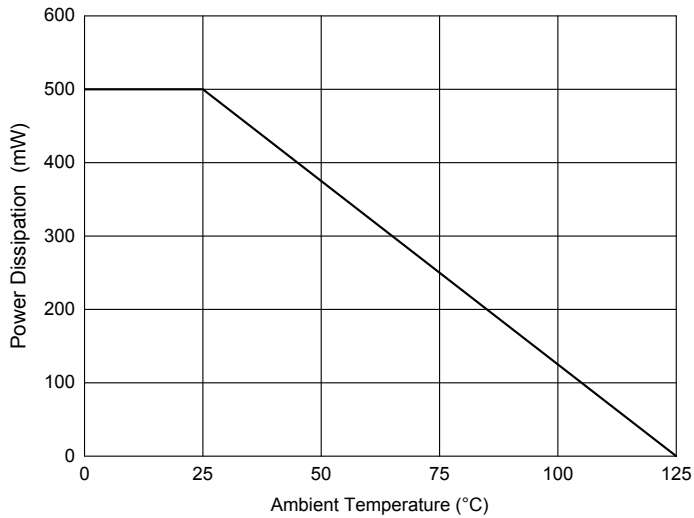


Fig. 3 - Power Derating Curve



Ordering Information

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

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