

## Features

- Extremely Fast Switching Speed
- Low Forward Voltage Drop
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- 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: 667°C/W Junction to Ambient

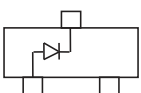
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
BAT54M	L1	30V	21V	30V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Reverse Breakdown Voltage	$V_{(BR)}$	>30V	$I_R = 100\mu A$
Average Forward Current	$I_F$	200mA	
Power Dissipation	$P_d$	150mW	
Peak Forward Surge Current	$I_{FSM}$	600mA	$t=8.3ms$
Repetitive Peak Forward Current	$I_{FRM}$	300mA	@ $t \leq 1s, \delta \leq 0.5$
Maximum Forward Voltage	$V_F$	240mV 320mV 400mV 500mV 1000mV	$I_F=0.1mA$ $I_F=1.0mA$ $I_F=10mA$ $I_F=30mA$ $I_F=100mA$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	2 $\mu A$	$V_R = 25V$
Maximum Total Capacitance	$C_T$	10.0pF	Measured at 1.0MHz, $V_R=1.0V$
Maximum Reverse Recovery Time	$t_{rr}$	5nS	$I_F = 10mA$ ; $I_R = 10mA$ ; $I_{R(REC)}=1.0mA$

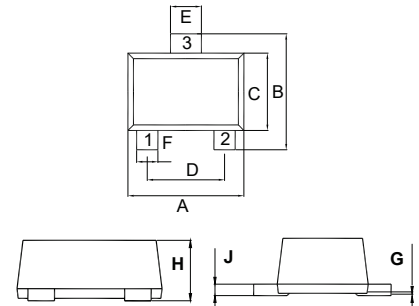
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

## Internal Structure



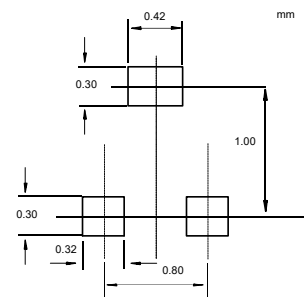
# 150mW, 30Volt Schottky Barrier Diode

## SOT-723



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.043	0.051	1.10	1.30	
B	0.043	0.051	1.10	1.30	
C	0.028	0.035	0.70	0.90	
D	0.031TYP.		0.80TYP.		
E	0.009	0.017	0.22	0.42	
F	0.005	0.013	0.12	0.32	
G	0.000	0.002	0.00	0.05	
H	0.017	0.021	0.43	0.54	
J	0.003	0.006	0.08	0.15	

## Suggested Solder Pad Layout



## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

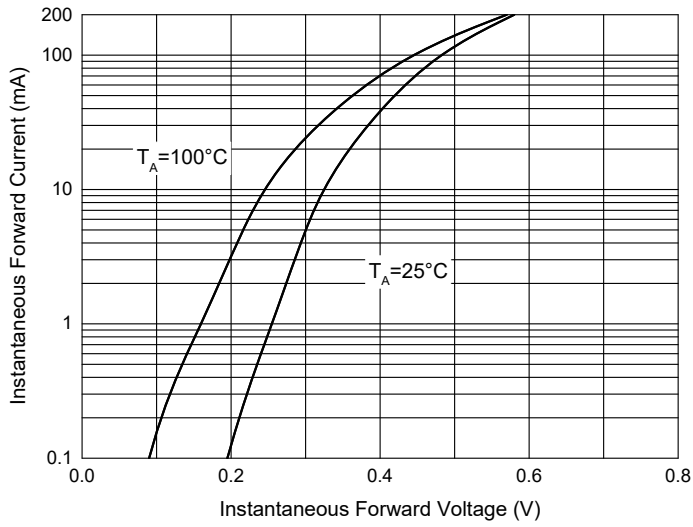


Fig. 2 - Typical Reverse Leakage Characteristics

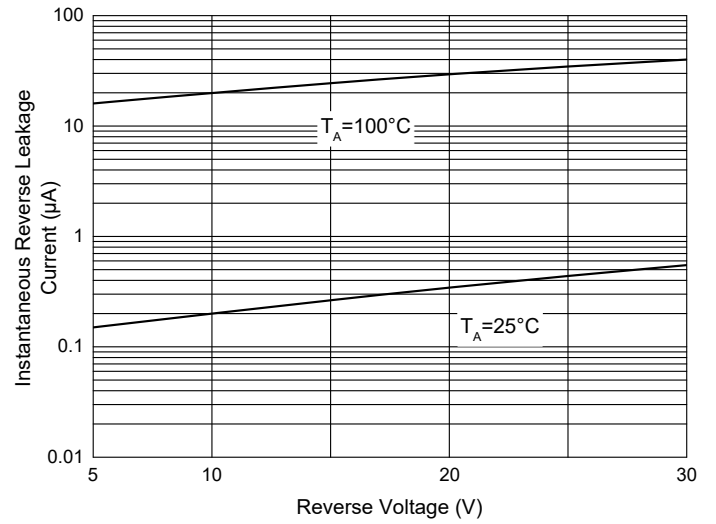
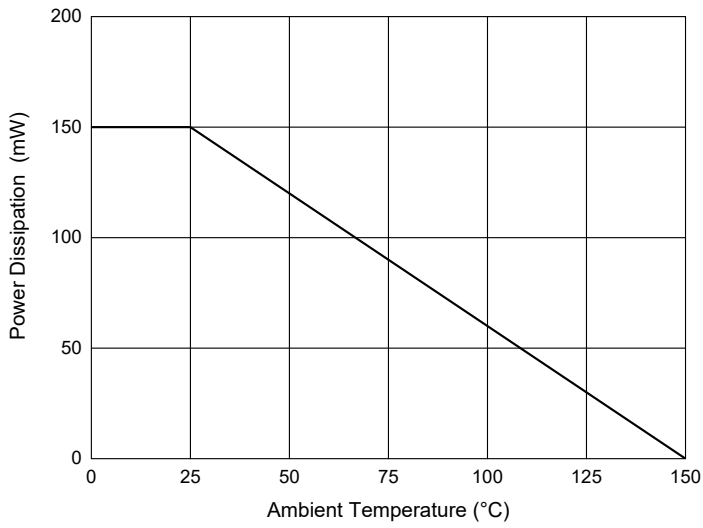


Fig. 3 - Power Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 8Kpcs/Reel

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