

**Features**

- Ultra-Small Surface Mount Package
- Low Forward Voltage Drop
- PN Junction Guard Ring for Transient and ESD Protection
- 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: -65°C to +125°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 667°C/W Junction to Ambient

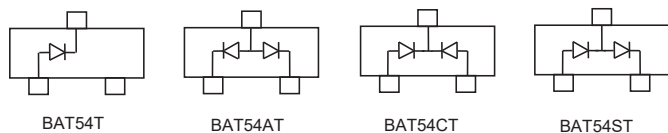
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum DC Blocking Voltage
BAT54T	L1	30V	30V
BAT54AT	L2	30V	30V
BAT54CT	L3	30V	30V
BAT54ST	L4	30V	30V

**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	$t < 1s$
Repetitive Peak Forward Current	$I_{FRM}$	300mA	
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	$I_F = I_R = 10mA$ , $I_{rr} = 0.1 \times I_R$ , $R_L = 100\Omega$

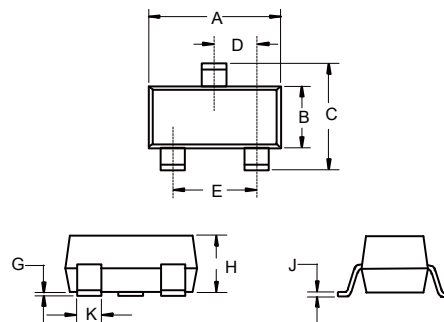
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure:**



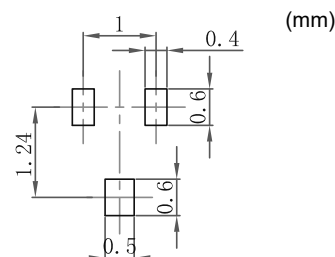
**150mW, 30V  
Schottky  
Barrier Diode**

**SOT-523**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.059	0.067	1.50	1.70	
B	0.030	0.033	0.75	0.85	
C	0.057	0.069	1.45	1.75	
D	0.020 Nominal		0.50 Nominal		
E	0.035	0.043	0.90	1.10	
G	0.000	0.004	0.00	0.10	
H	0.024	0.031	0.60	0.80	
J	0.004	0.008	0.10	0.20	
K	0.006	0.014	0.15	0.35	

**Suggested Solder Pad Layout**



**Curve Characteristics**

Fig. 1 - Typical Instantaneous Forward Characteristics

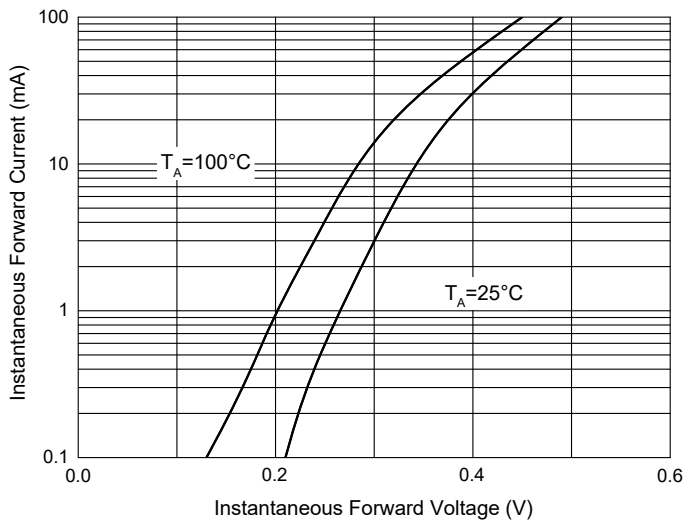


Fig. 2 - Typical Reverse Leakage Characteristics

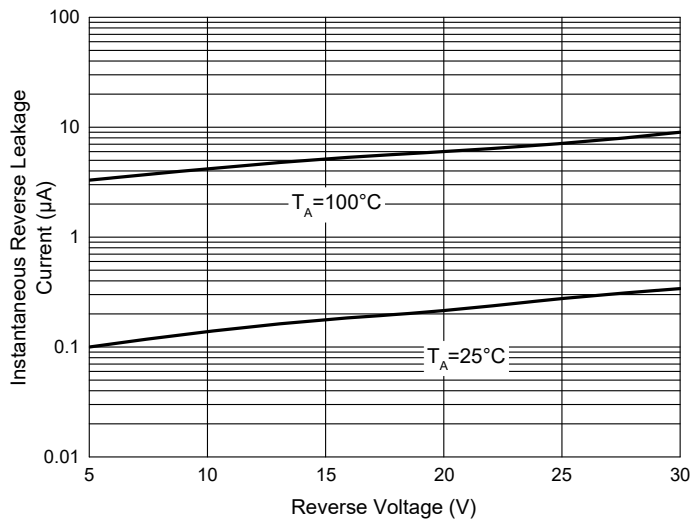
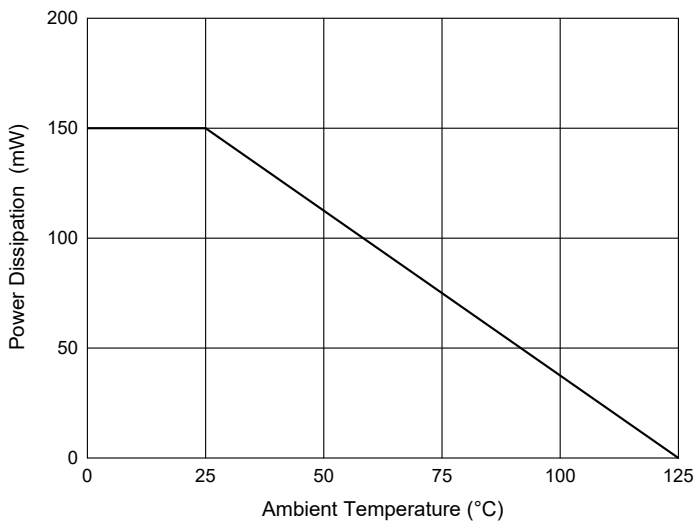


Fig. 3 - Power Derating Curve



## Ordering Information

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

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