

**Features**

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Low Forward Voltage
- 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: 500°C/W Junction to Ambient

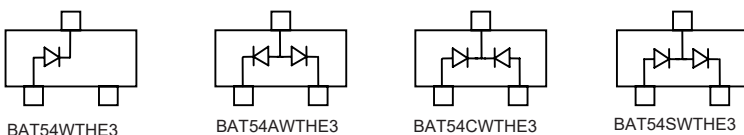
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
BAT54WTHE3	KL5	30V	21V	30V
BAT54AWTHE3	KL6	30V	21V	30V
BAT54CWTHE3	KL7	30V	21V	30V
BAT54SWTHE3	KL8	30V	21V	30V

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Average Forward Current	$I_{F(AV)}$	200mA	$T_A = 25^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	600mA	8.3ms
Repetitive Peak Forward Current	$I_{FRM}$	300mA	$t_p \leq 1s$ ; Duty Cycle $\leq 50\%$
Power Dissipation	$P_d$	200mW	$T_A = 25^\circ\text{C}$
Maximum Forward Voltage	$V_F$	240mV 320mV 400mV 500mV 800mV	$I_F = 0.1\text{mA}$ $I_F = 1.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 30\text{mA}$ $I_F = 100\text{mA}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	2.0µA	$V_R = 25\text{V}$
Maximum Reverse Breakdown Voltage	$V_{(BR)}$	>30V	
Maximum Junction Capacitance	$C_J$	10pF	Measured at 1.0MHz, $V_R = 1.0\text{V}$
Maximum Reverse Recovery Time	$t_{rr}$	5.0ns	$I_F = I_R = 10\text{mA}$ ; $I_{rr} = 0.1 \times I_R$ ; $R_L = 100\Omega$

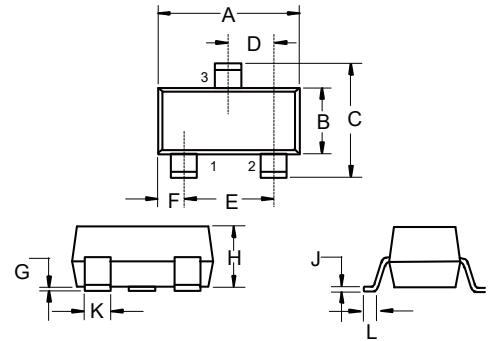
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure:**



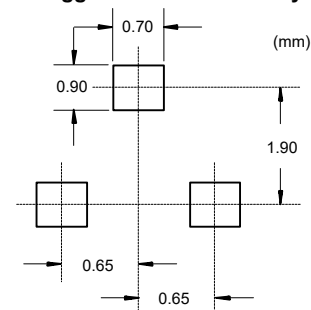
**200mW, 30V  
Schottky Barrier  
Diode**

**SOT-323**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026		0.65		TYP.
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.044	0.90	1.10	
J	0.002	0.010	0.05	0.25	
K	0.006	0.016	0.15	0.40	
L	0.010	0.018	0.26	0.46	

**Suggested Solder Pad Layout**



## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

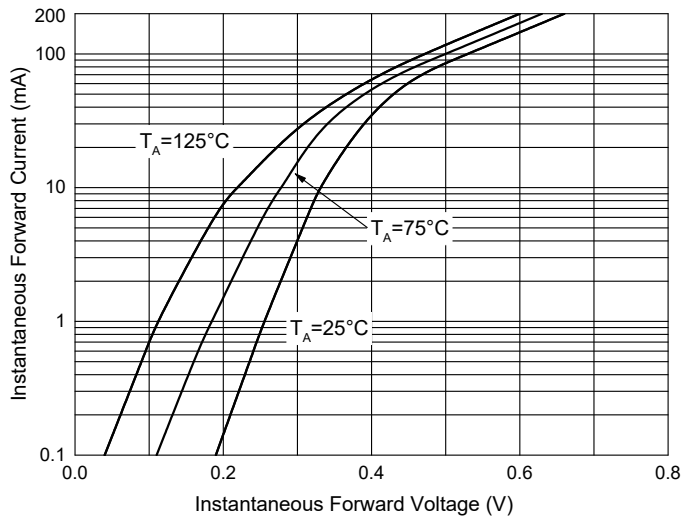


Fig. 2 - Typical Reverse Leakage Characteristics

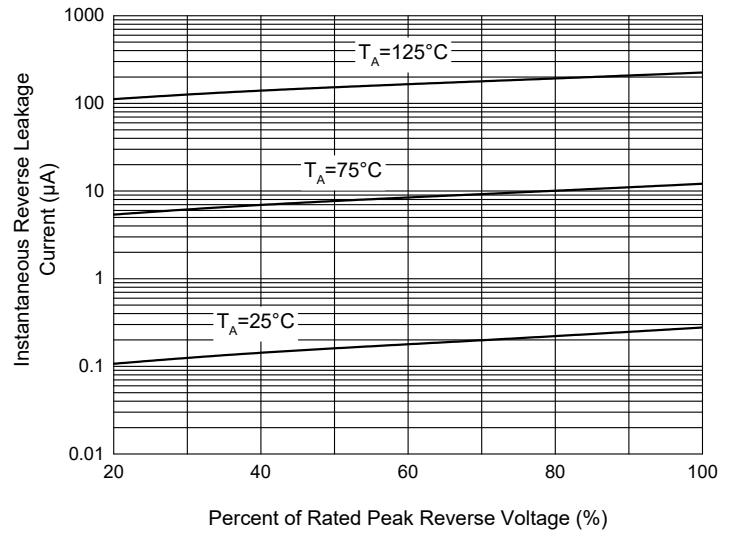
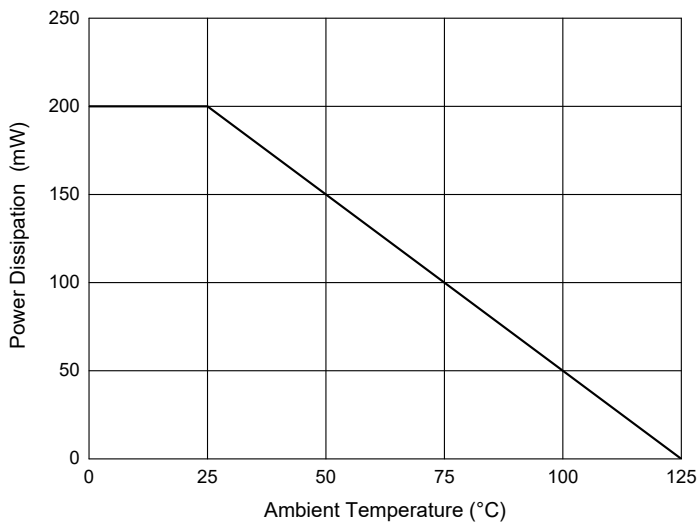


Fig. 3 - Power Derating Curve



## Ordering Information

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

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