

Features

- Low Forward Voltage
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 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

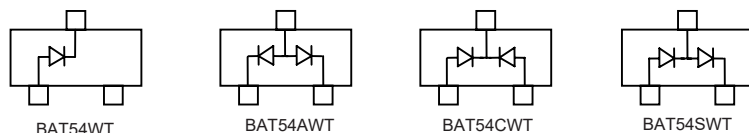
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
BAT54WT	KL5	30V	21V	30V
BAT54AWT	KL6	30V	21V	30V
BAT54CWT	KL7	30V	21V	30V
BAT54SWT	KL8	30V	21V	30V

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	$t_p \leq 1\text{s}$; 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	2.0 μA	$V_R = 25\text{V}$
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	$I_F = I_R = 10\text{mA}$; $I_{rr} = 0.1 \times I_R$, $R_L = 100\Omega$

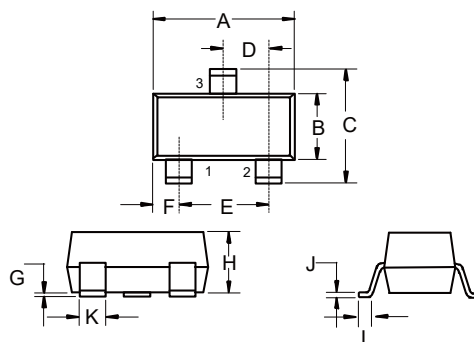
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure:



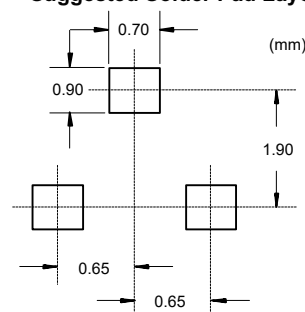
200mW, 30V Schottky Barrier Diode

SOT-323



DIM	INCHES		MM		NOTE
	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

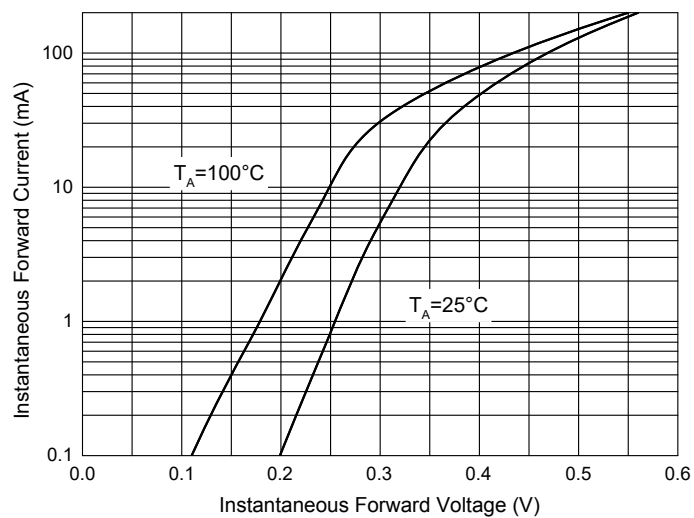


Fig. 2 - Typical Reverse Leakage Characteristics

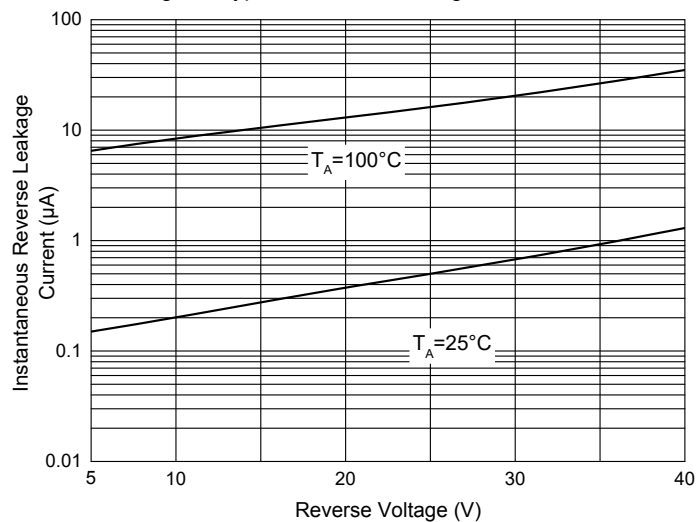
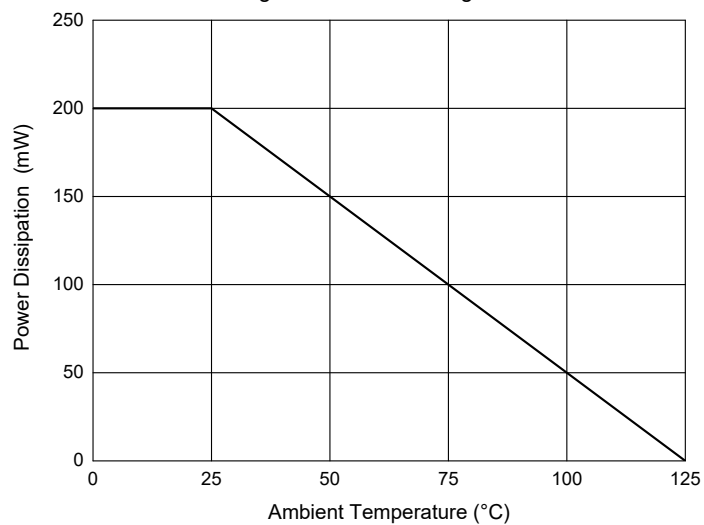


Fig. 3 - Power Derating Curve



Ordering Information

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

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