

Features

- Fast Switching and Low Forward Voltage Drop
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Available in Lead Free Version
- 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 +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 625°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum DC Blocking Voltage
BAT54ADW	KL6	30V	30V
BAT54CDW	KL7	30V	30V
BAT54SDW	KL8	30V	30V
BAT54BRW	KLB	30V	30V
BAT54TW	KLA	30V	30V

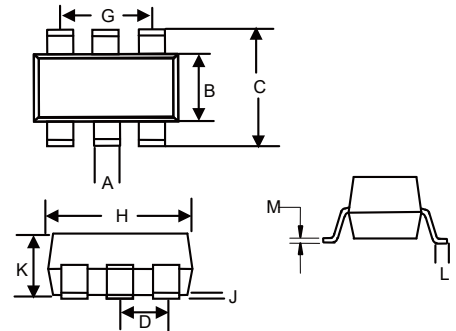
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	200mA	$T_A = 25^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	600mA	$t < 1\text{s}$
Repetitive Peak Forward Current	I_{FRM}	300mA	
Power Dissipation	P_d	200mW	$T_A = 25^\circ\text{C}$
Maximum Forward Voltage	V_F	240mV 320mV 400mV 500mV 1000mV	$I_F = 0.1\text{mA}$ $I_F = 1.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 30\text{mA}$ $I_F = 100\text{mA}$
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.

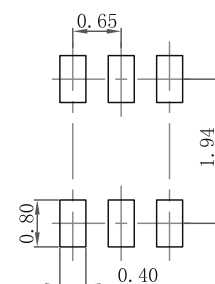
200mW, 30Volt Schottky Barrier Diode

SOT-363

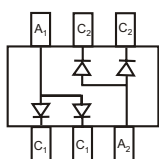


DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.006	0.014	0.15	0.35	
B	0.045	0.053	1.15	1.35	
C	0.079	0.096	2.00	2.45	
D	0.026		0.65 Nominal		
G	0.047	0.055	1.20	1.40	
H	0.071	0.087	1.80	2.20	
J	----	0.004	----	0.10	
K	0.031	0.043	0.80	1.10	
L	0.010	0.018	0.26	0.46	
M	0.003	0.006	0.08	0.15	

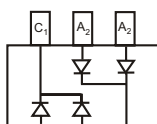
Suggested Solder Pad Layout



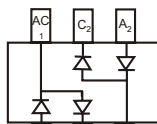
Internal Structure:



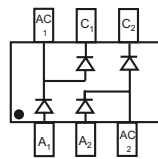
BAT54ADW*



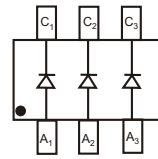
BAT54CDW*



BAT54SDW*



BAT54BRW



BAT54TW

*Symmetrical configuration, no orientation indicator.

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

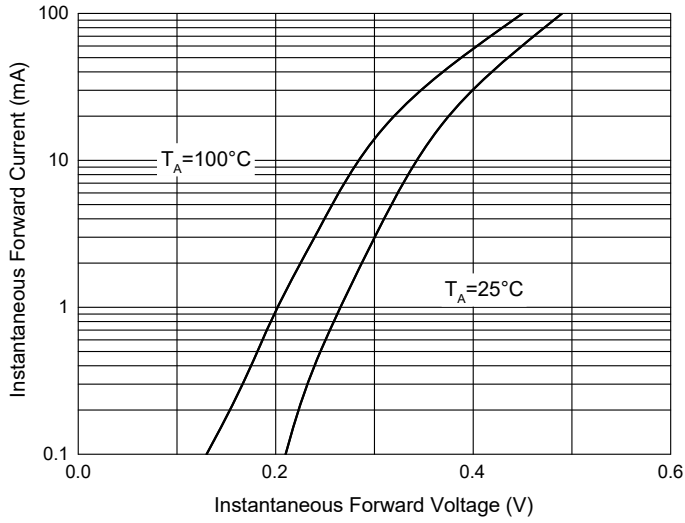


Fig. 2 - Typical Reverse Leakage Characteristics

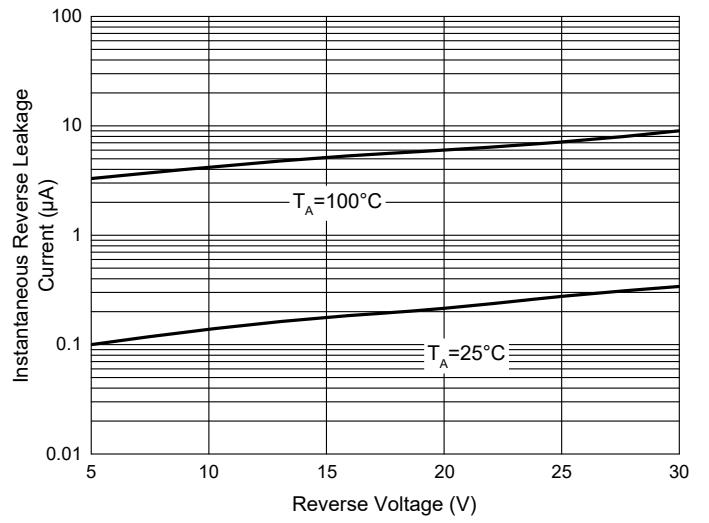
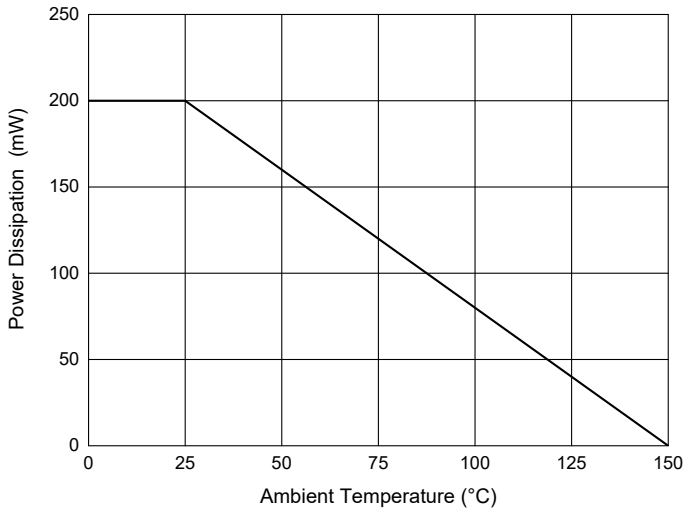


Fig. 3 - Power Derating Curve



Ordering Information

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

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