

BAT54W

200mWatt, 30Volt Schottky Barrier Diode

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Low Turn-on Voltage and Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

Maximum Ratings

Continuous Reverse Voltage	V_R	30V
Continuous Forward Current	I_F	200mA
Forward Surge Current	I_{FSM}	600mA
Total Power Dissipation @ $T_A = 25^\circ\text{C}$	P_D	200mW
Junction Temperature	T_j	125°C
Storage Temperature Range	T_{stg}	-65 °C to 150°C
Device Marking : L9		

Electrical Characteristics @ 25°C Unless Otherwise Specified

Ratings	Symbol	Max.	Notes
Forward Voltage at $I_F = 0.1\text{mA}$ $I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 30\text{mA}$ $I_F = 100\text{mA}$	V_F	240mV 320mV 400mV 500mV 1000mV	
Reverse Current	I_R	2.0µA	$V_R = 25\text{V}$
Capacitance	C_T	10pF	Measured at 1.0MHz, $V_R=0$
Reverse Breakdown Voltage	$V_{(BR)}$	>30V	
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625K/W	

SOD123

The diagram shows the SOD123 package with dimensions A through J. Dimension A is the total width, B is the width of the central body, C is the height of the top surface, D is the height of the side wall, E is the height of the top surface from the base, G is the width of the bottom flange, H is the height of the bottom flange, and J is the width of the bottom flange.

DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	0.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	0.25	
J	-----	.006	-----	0.15	

SUGGESTED SOLDER PAD LAYOUT

The suggested solder pad layout shows a central pad with a width of 0.093 inches and a height of 0.048 inches. The distance between the center of the pad and the edge of the solder pad is 0.036 inches.

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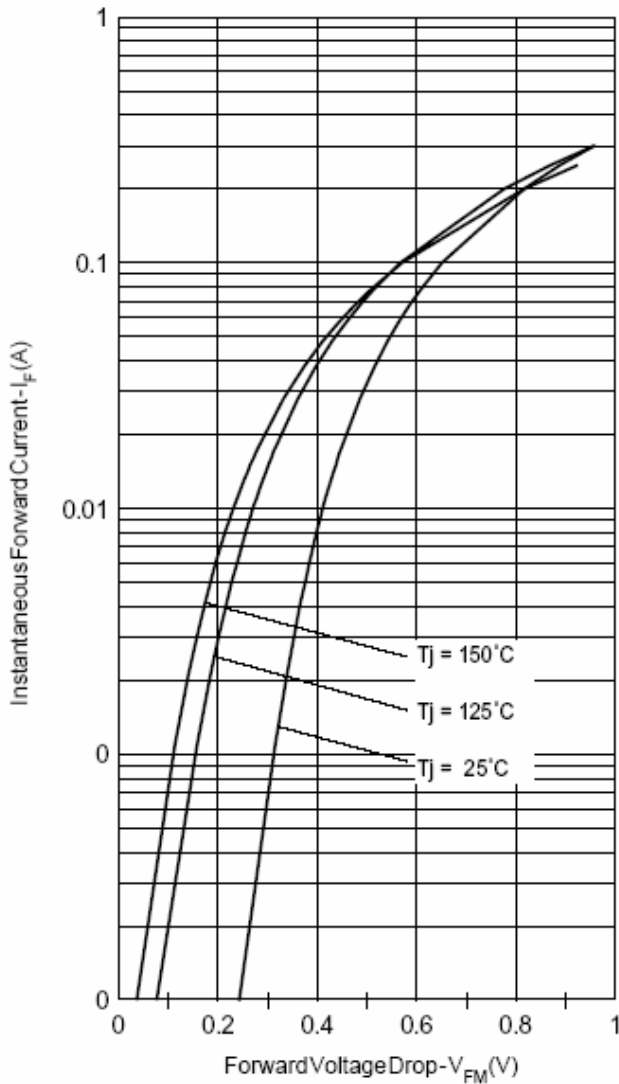


Fig. 1 - Max. Forward Voltage Drop Characteristics (Per Leg)

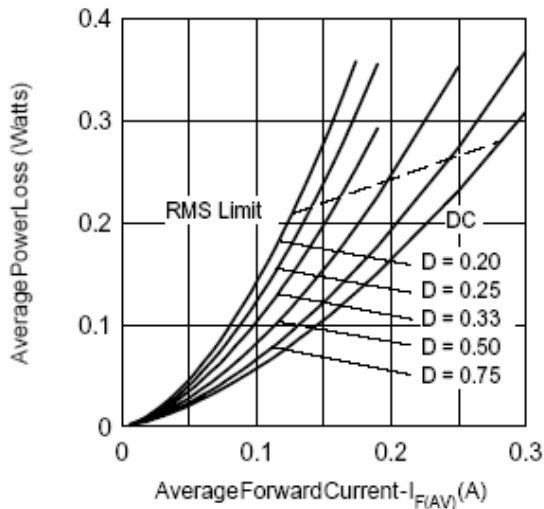


Fig. 4 - Forward Power Loss Characteristics

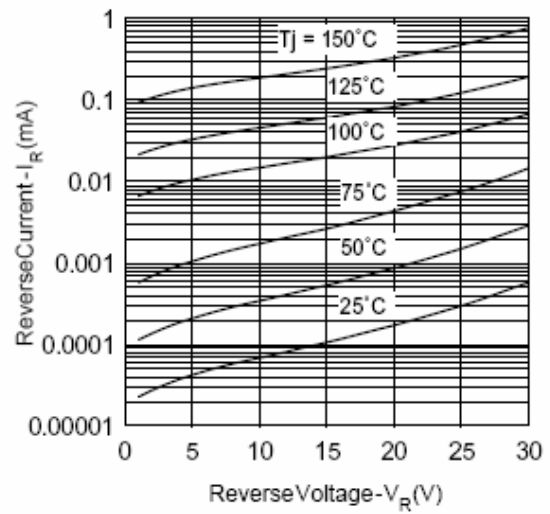


Fig. 2 - Typical Values Of Reverse Current Vs. Reverse Voltage (Per Leg)

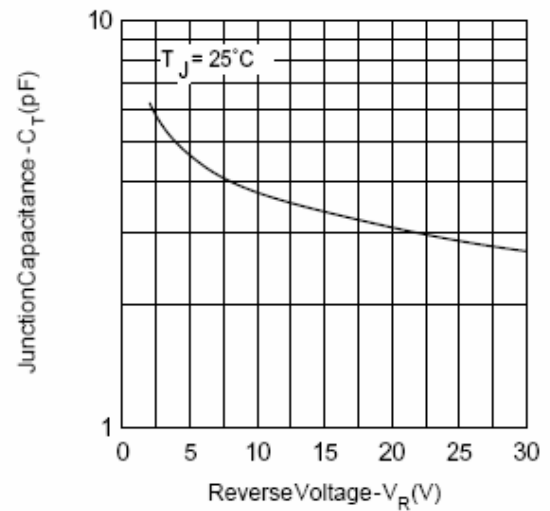


Fig. 3 - Typical Junction Capacitance Vs. Reverse Voltage (Per Leg)

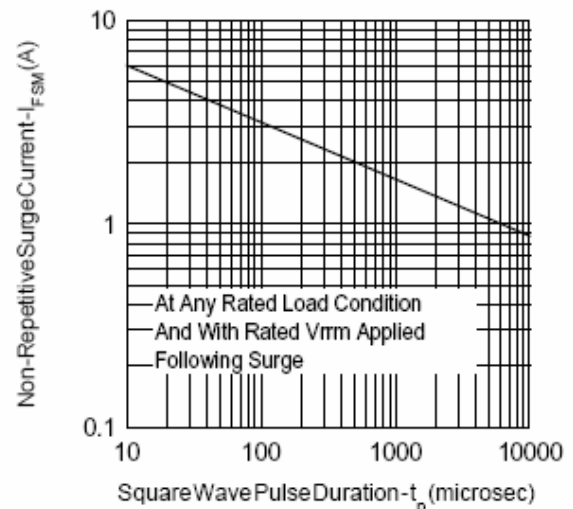


Fig. 5 - Max. Non-Repetitive Surge Current

Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel