



## DESCRIPTION

The BAT54SDW is available in SC-88 Package

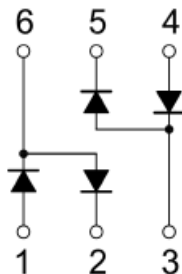
## ORDERING INFORMATION

Package Type	Part Number
SC-88	BAT54SDW
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

## FEATURES

- Low Forward Voltage Drop
- Fast Switching
- Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Available in SC-88 Package

## PIN DESCRIPTION





## ABSOLUTE MAXIMUM RATINGS

T<sub>A</sub> = 25°C, unless otherwise noted

V <sub>RRM</sub> , Repetitive Peak Reverse Voltage	30V
V <sub>RWM</sub> , Peak Working Reverse Voltage	30V
V <sub>R</sub> , DC Blocking Voltage	30V
I <sub>O</sub> , Forward Continuous Current	200mA
I <sub>FRM</sub> , Repetitive Peak Forward Current	300mA
I <sub>FSM</sub> , Non-repetitive Peak Forward Surge Current @t=8.3ms	600mA
P <sub>D</sub> , Power Dissipation	200mW
R <sub>θJA</sub> , Thermal Resistance From Junction To Ambient	500°C/W
T <sub>J</sub> , Junction Temperature	125°C
T <sub>STG</sub> , Storage Temperature	-55°C ~+150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

## ELECTRICAL CHARACTERISTICS

T<sub>A</sub> = 25°C, unless otherwise noted

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V <sub>(BR)R</sub>	I <sub>R</sub> =100μA	30	-	-	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =25V	-	-	2	μA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1mA	-	-	320	mV
		I <sub>F</sub> =10mA	-	-	400	
		I <sub>F</sub> =30mA	-	-	500	
		I <sub>F</sub> =100mA	-	-	1000	
Total Capacitance	C <sub>tot</sub>	V <sub>R</sub> =0V, f=1MHz	-	-	10	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>rr</sub> =0.1 x I <sub>R</sub> , R <sub>L</sub> =100Ω	-	-	5	ns



## TYPICAL CHARACTERISTICS

Figure 1. Forward Characteristics

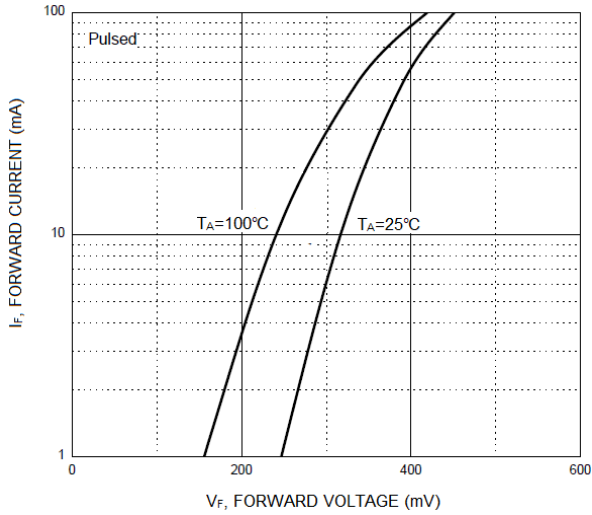


Figure 2. Reverse Characteristics

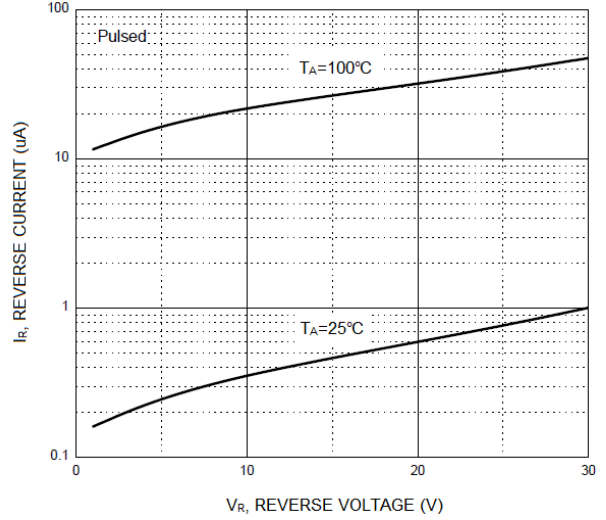


Figure 3. Capacitance Characteristics

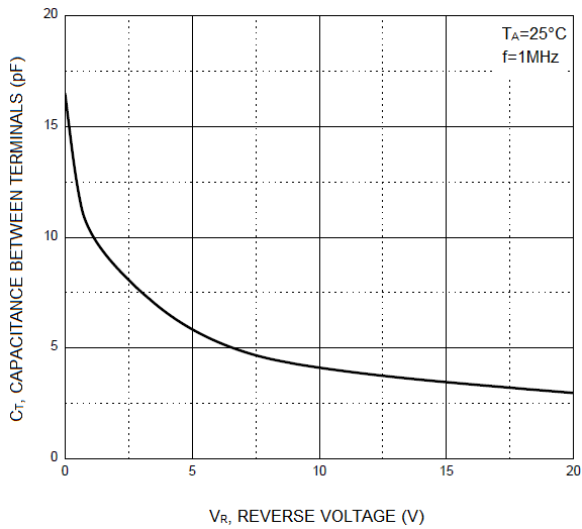
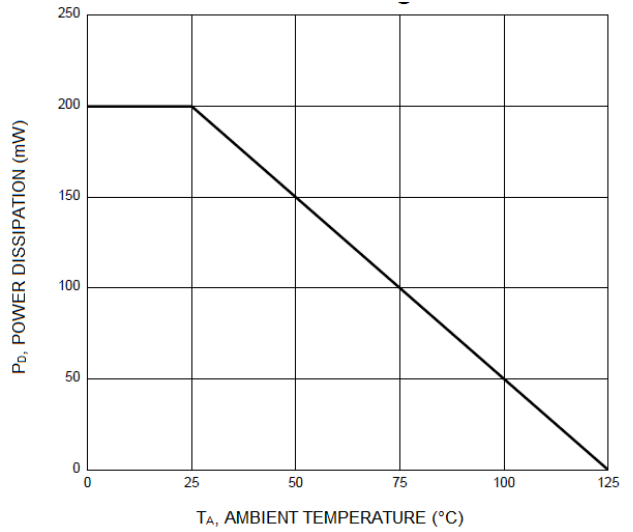


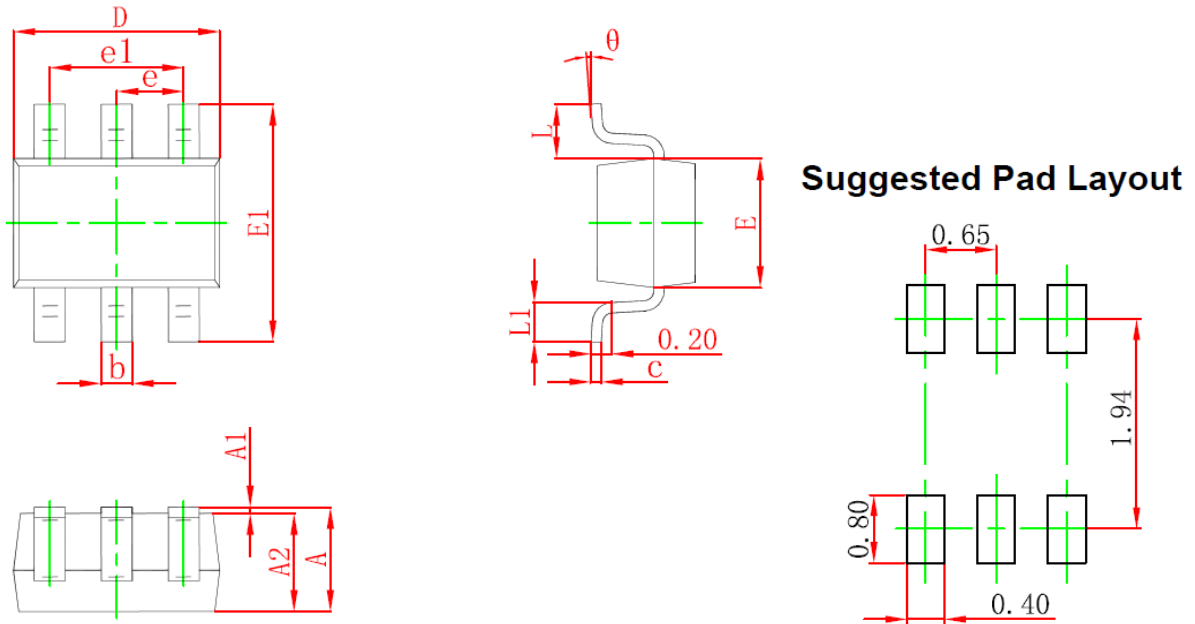
Figure 4. Power Derating Curve





**PACKAGE INFORMATION**

Dimension in SC-88 (Unit: mm)



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
$\theta$	0°	8°	0°	8°



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