

**DESCRIPTION**

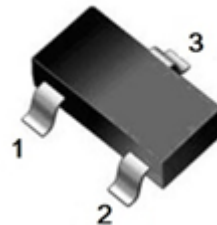
The BAT54W-Q is available in SOT-323 package.

**FEATURE**

- AEC-Q101 qualified
- Extremely Fast Switching Speed
- Low Forward Voltage: 0.35V(Typ.)  
@ IF = 10mA

**ORDERING INFORMATION**

Package Type	Part Number
SOT-23	BAT54W-Q
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

**PIN DESCRIPTION****SOT-323**

PIN#	DESCRIPTION
1	ANODE
2	NC
3	CATHODE

**ABSOLUTE MAXIMUM RATINGS**

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

V <sub>R</sub> , Reverse voltage		30V
I <sub>F</sub> , Forward Current (DC)		200mA
P <sub>D</sub> , Total Device Dissipation *	T <sub>A</sub> = 25°C	225mW
R <sub>θJA</sub> , Thermal Resistance, Junction-to-Ambient		443°C/W
R <sub>θJC</sub> , Thermal Resistance, Junction-to-Case		160°CW
T <sub>J</sub> , Junction Temperature Range		-55°C~+125°C
T <sub>STG</sub> , Storage Temperature Range		-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.

\*Device mounted on an FR-4 PCB, single-sided copper, tin-plated and standard footprint.



## ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>R</sub> = 10μA	30	-	-	V
Diode Capacitance	C <sub>T</sub>	V <sub>R</sub> = 1V, f = 1MHz	-	10	-	pF
Reverse Voltage Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 25V	-	0.50	2	μA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 0.1mA	-	0.22	0.24	V
		I <sub>F</sub> = 1mA	-	0.29	0.31	
		I <sub>F</sub> = 10mA	-	0.35	0.40	
		I <sub>F</sub> = 30mA	-	0.41	0.50	
		I <sub>F</sub> = 100mA	-	0.52	1	
Forward Current (DC)	I <sub>F</sub>	-	-	-	200	mA
Repetitive Peak Forward Current	I <sub>FRM</sub>	-	-	-	300	mA
Non-Repetitive Peak Forward Current	I <sub>FSM</sub>	t < 1.0 s	-	-	600	mA

## TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Forward Characteristics

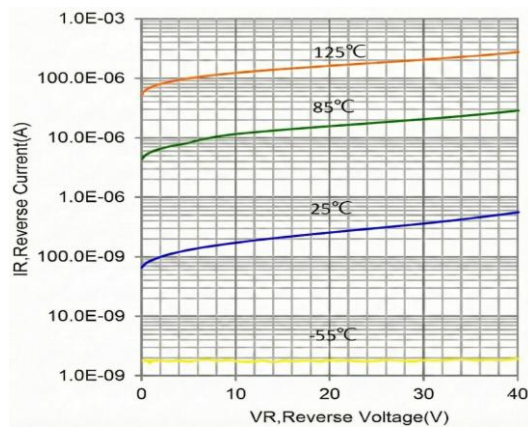


Fig 2. Reverse Characteristics

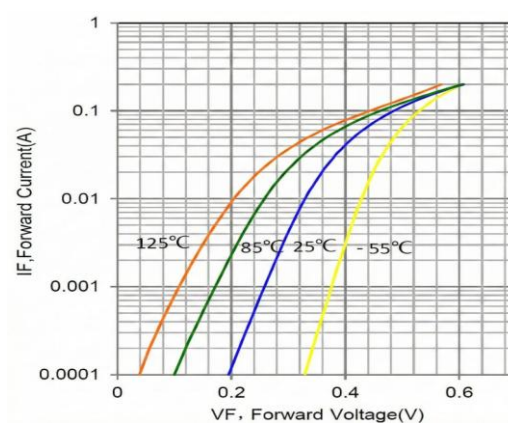
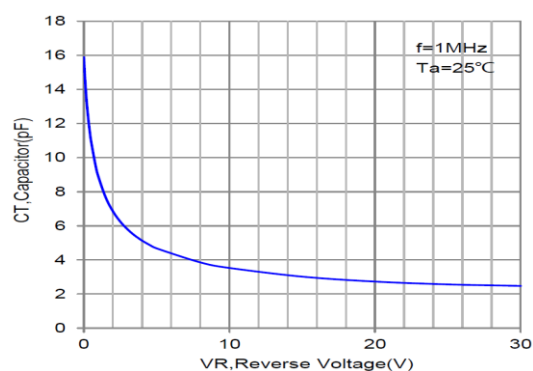


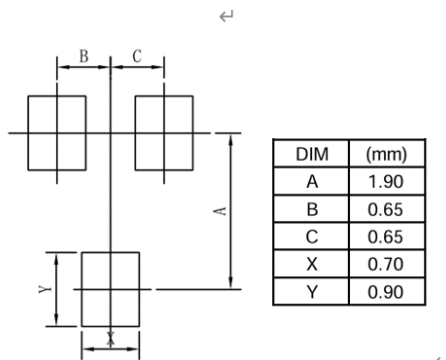
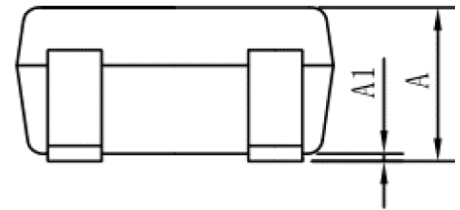
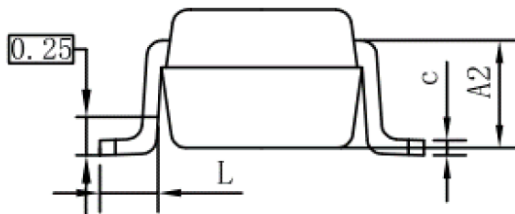
Fig 3. Capacitor Characteristics



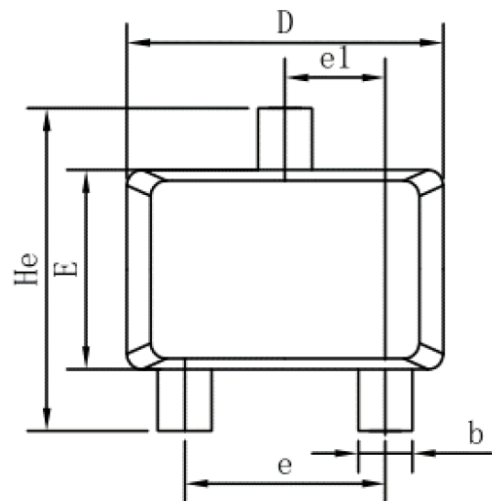


## PACKAGE INFORMATION

Dimension in SOT-323 Package (Unit: mm)



The recommended mounting pad size



SYMBOL	MIN	MAX
A	0.800	1.000
A1	0.000	0.100
A2	0.700 REF.	
b	0.300	0.400
c	0.100	0.250
D	1.800	2.200
E	1.150	1.350
e	1.200	1.400
e1	0.650 BSC.	
L	0.200	0.560
He	2.000	2.400



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