

**SURFACE MOUNT
SCHOTTKY BARRIER DIODE**

**REVERSE VOLTAGE – 30 Volts
FORWARD CURRENT – 0.2 Ampere**

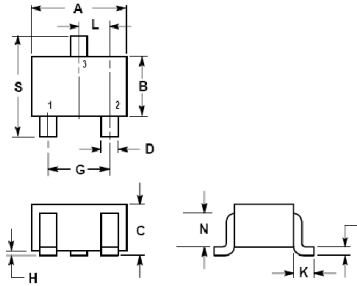
FEATURES

- Extremely Fast Switching Speed
- Low Forward Voltage
- Very Small Conduction Losses

MECHANICAL DATA

- Case: SOT-323 Plastic
- Case Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture Sensitivity: Level 1 per J-STD-020D
- Lead Free in RoHS 2002/95/EC Compliant

SOT-323



SOT-323		
Dim.	Min.	Max.
A	1.80	2.20
B	1.15	1.35
C	0.80	1.00
D	0.30	0.40
G	1.20	1.40
H	0.00	0.10
J	0.10	0.25
K	0.425 Ref.	
L	0.650 Bsc	
N	0.700 Ref.	
S	2.00	2.40
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAT54W	BAT54AW	BAT54CW	BAT54SW	Units
Repetitive Peak Reverse Voltage	V _{RRM}	30				V
Working Peak Reverse Voltage	V _{RWM}	30				V
DC Blocking Voltage	V _R	30				V
Average Rectified Output Current	I _O	200				mA
Forward Surge Current @t<1.0s	I _{FSM}	600				mA
Power Dissipation	P _D	200				mW
Operating Temperature Range	T _J	125				°C
Storage Temperature Range	T _{STG}	-55~+125				°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Test Condition	Symbol	BAT54W	BAT54AW	BAT54CW	BAT54SW	Unit
Reverse Breakdown Voltage	I _R = 100uA	V _{BR}	30				V
Maximum Forward Voltage	I _F = 0.1mA	V _F	240				mV
	I _F = 1mA		320				
	I _F = 10mA		400				
	I _F = 30mA		500				
	I _F = 100mA		1000				
Maximum DC Reverse Current at Rated DC Blocking Voltage	V _R = 25V	I _R	2				uA
Typical Diode Capacitance	V _R = 1.0V, f=1MHz	C _D	10				pF
Reverse Recovery time	I _{rr} =1mA, I _R =I _F =10mA, R _L =100Ω	t _{rr}	5				nS

REV. 4, May-2016, KSHR25

RATING AND CHARACTERISTIC CURVES BAT54W, BAT54AW / CW / SW



FIG.1- TYPICAL FORWARD CHARACTERISTICS

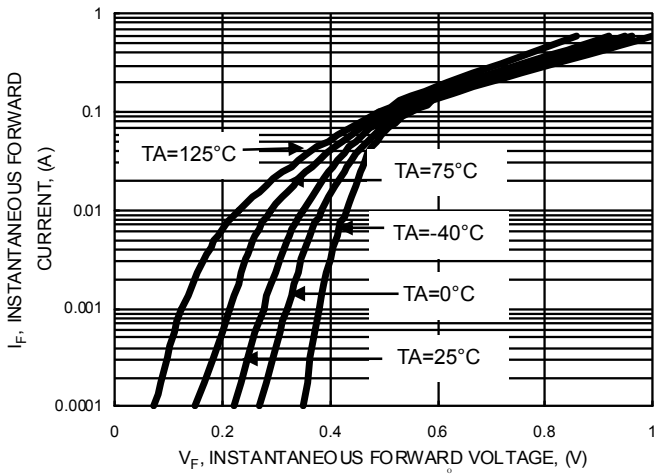


FIG.2- TYPICAL REVERSE CHARACTERISTICS

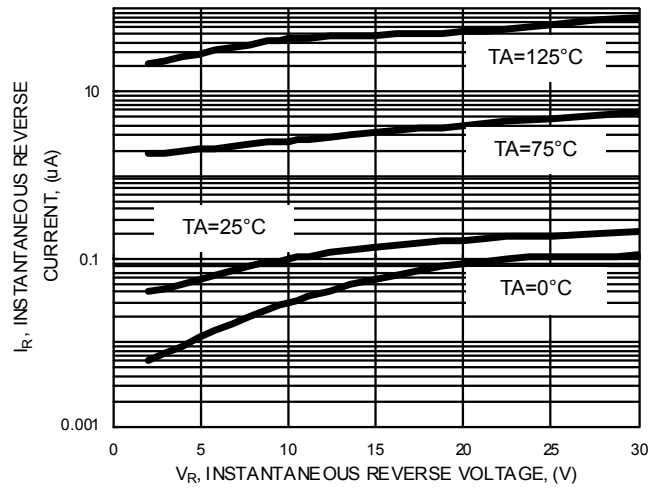


FIG.3- TYPICAL JUNCTION CAPACITANCE

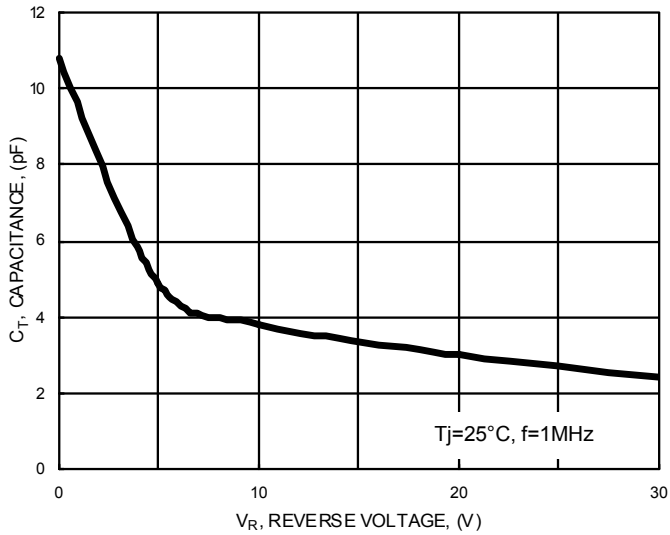
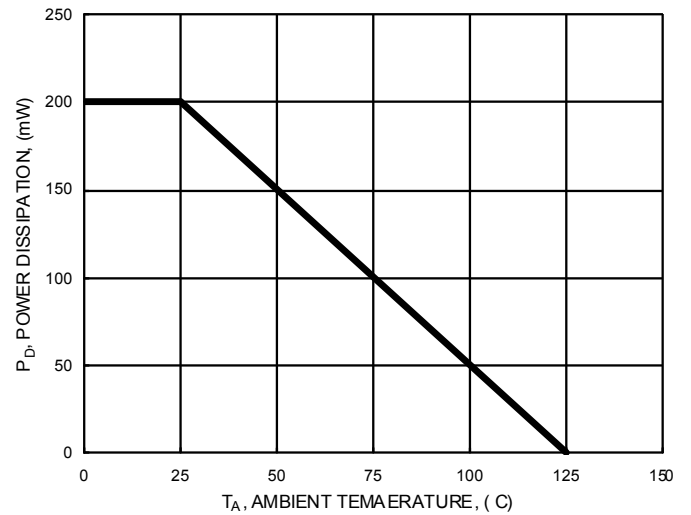


FIG.4- POWER DERATING CURVE



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
BAT54W	B4	
BAT54AW	B7	
BAT54CW	5C	
BAT54SW	B8	

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