

**SURFACE MOUNT
SCHOTTKY BARRIER DIODE**

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

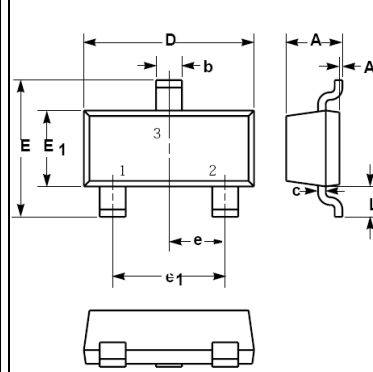
FEATURES

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

MECHANICAL DATA

- Case: SOT-523 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-523



SOT-523		
Dim.	Min.	Max.
A	0.70	0.90
A1	0.00	0.10
b	0.25	0.325
c	0.10	0.20
D	1.50	1.70
E	1.45	1.75
E1	0.75	0.85
e	0.50 Typ.	
e1	0.90	1.10
L	0.55 Ref.	
Dimensions in millimeter		

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

Characteristic	Symbol	BAT54T	BAT54AT	BAT54CT	BAT54ST	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	150				mW
Operating Temperature Range	T _J	125				°C
Storage Temperature Range	T _{STG}	-65~+150				°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Test Condition	Symbol	BAT54T	BAT54AT	BAT54CT	BAT54ST	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	trr	5				nS

REV. 2, Oct-2010, KSHR23

RATING AND CHARACTERISTIC CURVES

BAT54T, BAT54AT / CT / ST



FIG.1- TYPICAL FORWARD CHARACTERISTICS

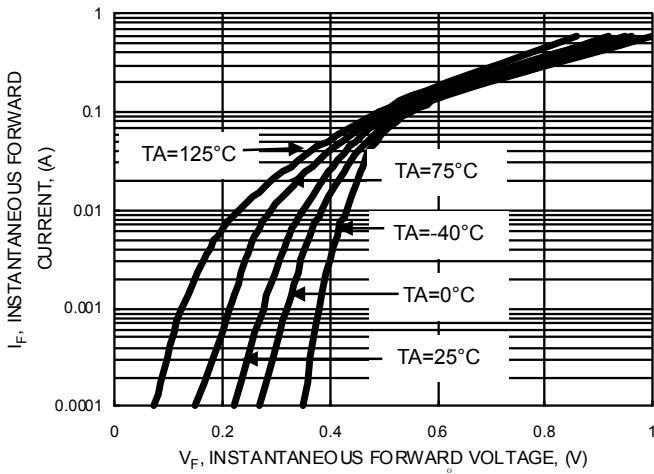


FIG.2- TYPICAL REVERSE CHARACTERISTICS

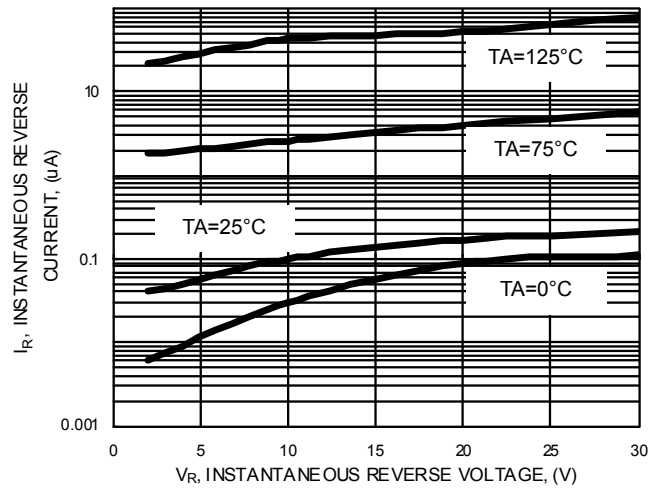


FIG.3- TYPICAL JUNCTION CAPACITANCE

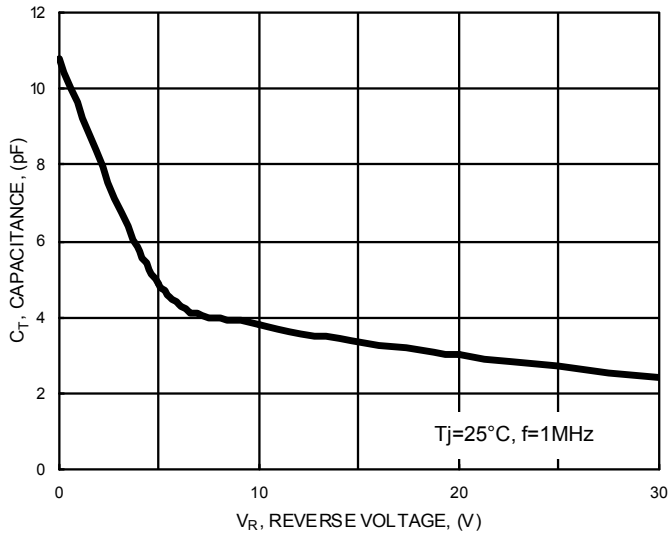
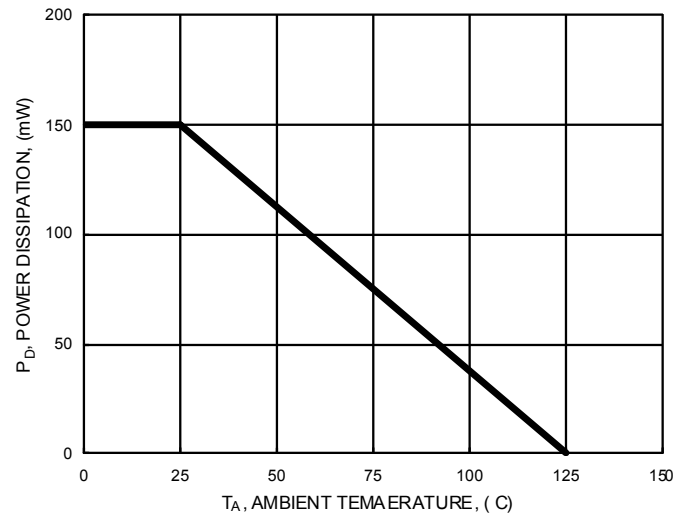


FIG.4- POWER DERATING CURVE



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
BAT54T	L1	
BAT54AT	L2	
BAT54CT	L3	
BAT54ST	L4	

Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.