

**SURFACE MOUNT
SCHOTTKY BARRIER DIODE**

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

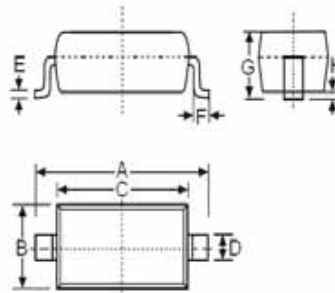
FEATURES

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection

MECHANICAL DATA

- Case: SOD-123 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

SOD-123



SOD-123		
Dim.	Min.	Max.
A	3.55	3.85
B	1.50	1.70
C	2.60	2.80
D	0.45	0.65
E	0.08	0.15
F	0.25	0.45
G	1.05	1.25
H	0.00	0.10
Dimensions in millimeter		

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

Characteristic	Symbol	BAT54R	Units
Repetitive Peak Reverse Voltage	V _{RRM}	30	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	21	V
Forward continuous Current	I _F	200	mA
Repetitive peak Forward Current	I _{FRM}	300	mA
Forward Surge Current @t<1s	I _{FSM}	600	mA
Power Dissipation	P _D	300	mW
Thermal Resistance Junction to Ambient	R _{JA}	417	/W
Operating Temperature Range	T _J	125	
Storage Temperature Range	T _{STG}	-65~+125	

Electrical Characteristics @ T_A = 25 unless otherwise specified

Characteristic	Test Condition	Symbol	BAT54R	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. 0, May-2009, KSHR22

RATING AND CHARACTERISTIC CURVES BAT54R



FIG.1- TYPICAL FORDW CHARACTERISTICS

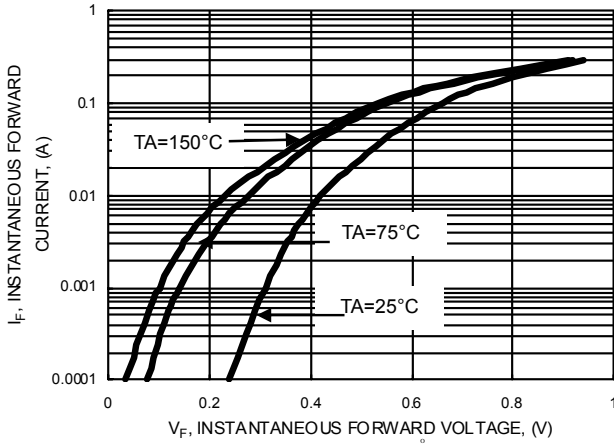


FIG.2- TYPICAL REVERSE CHARACTERISTICS

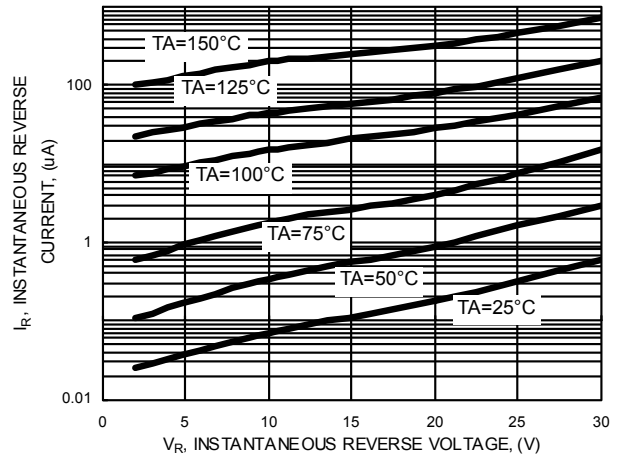


FIG.3- TYPICAL JUNCTION CAPACITANCE

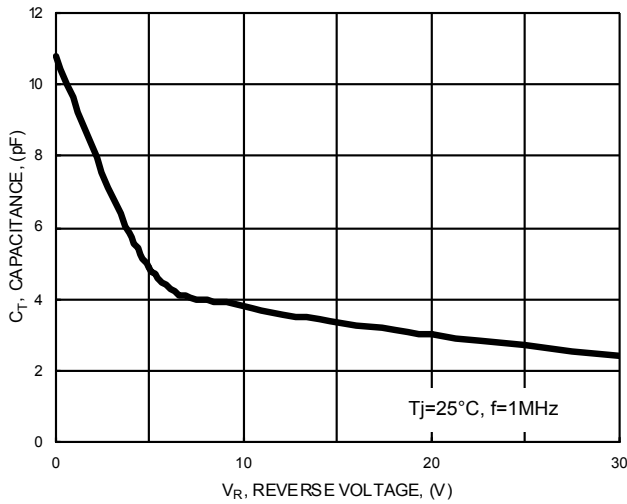
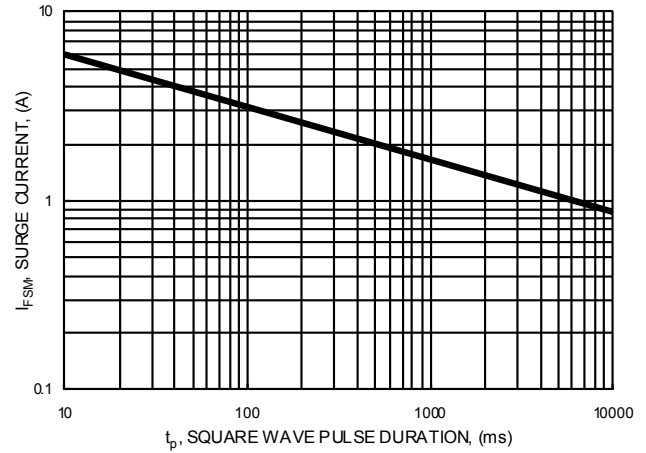


FIG.4- NON-REPETITIVE SURGE CURRENT



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
BAT54R	L9	