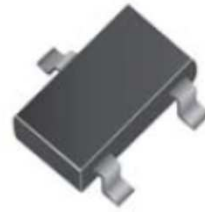


**Small Signal Product**

**230mW SMD Schottky Barrier Diode**

**FEATURES**

- Fast switching speed
- Surface mount device type
- Moisture sensitivity level 1
- Matte Tin (Sn) lead finish with Nickel (Ni) underplate
- Pb free and RoHS compliant
- Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code



**SOT-23**



**MECHANICAL DATA**

- Case: Bend lead SOT-23 small outline plastic package
- Terminal: Matte tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed: 260°C/10s
- Polarity: Indicated by cathode band
- Weight: 8 ± 0.5 mg
- Marking Code: KL1, KL2, KL3, KL4

<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b> (T <sub>A</sub> =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Peak Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	30	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Reverse Voltage	V <sub>R</sub>		
Forward Continuous Current	I <sub>F</sub>	200	mA
Repetitive Peak Forward current (tp ≤ 1S; δ ≤ 0.5)	I <sub>FRM</sub>	300	mA
Forward Surge Current @ t < 1.0s	I <sub>FSM</sub>	600	mA
Power Dissipation	P <sub>d</sub>	200	mW
Thermal Resistance, Junction to Ambient	R <sub>θJA</sub>	500	°C/W
Operating and Storage Temperature	T <sub>j</sub> , T <sub>STG</sub>	-55 to 125	°C

PARAMETER	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	V <sub>(BR)</sub>	30	--	V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =100μA	0.24	V
		I <sub>F</sub> =0.1mA	0.32	V
		I <sub>F</sub> =1mA	0.40	V
		I <sub>F</sub> =10mA	0.50	V
		I <sub>F</sub> =30mA	1.00	V
Reverse Current	I <sub>R</sub>	--	2.0	μA
Total Capacitance	C <sub>T</sub>	--	10	pF
Reverse Recovery Time	t <sub>rr</sub>	--	5	ns

**Small Signal Product**

**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

Fig. 1 Typical Forward Characteristics

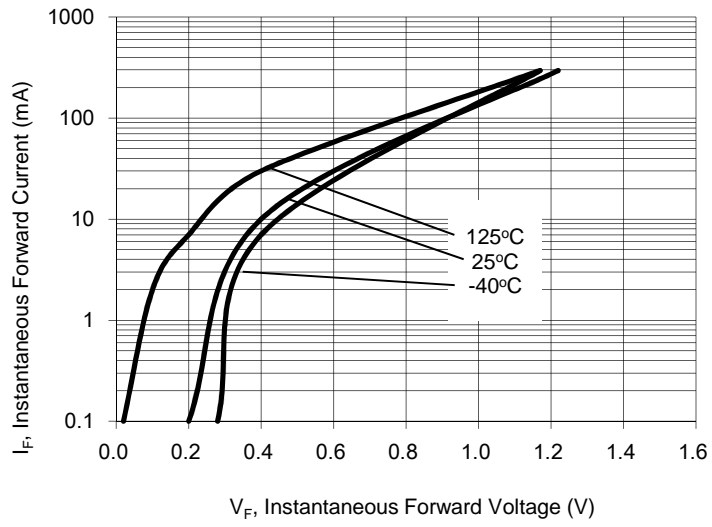


Fig. 2 Typical Reverse Characteristics

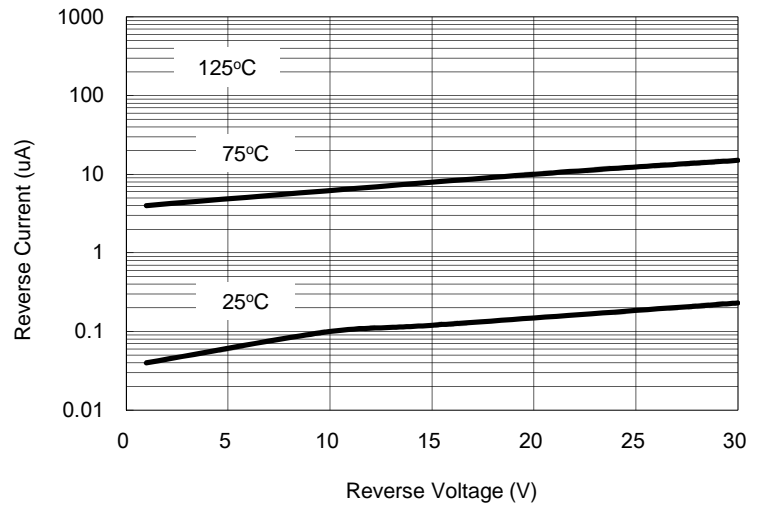


Fig. 3 Admissible Power Dissipation Curve

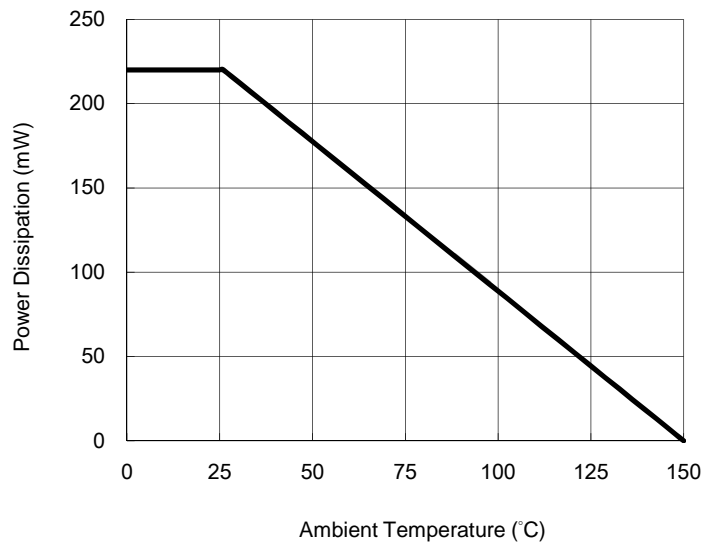
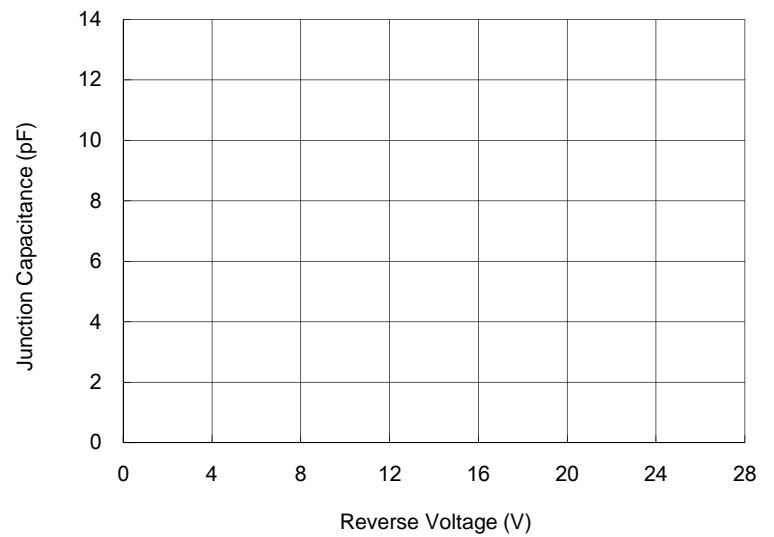


Fig. 4 Typical Junction Capacitance



**Small Signal Product**
**ORDERING INFORMATION**

PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BAT54	(Note)	RF		SOT-23	3K / 7" Reel	KL1
BAT54A		RF		SOT-23	3K / 7" Reel	KL2
BAT54C		RF		SOT-23	3K / 7" Reel	KL3
BAT54S		RF		SOT-23	3K / 7" Reel	KL4
BAT54		RF	G	SOT-23	3K / 7" Reel	KL1
BAT54A		RF	G	SOT-23	3K / 7" Reel	KL2
BAT54C		RF	G	SOT-23	3K / 7" Reel	KL3
BAT54S		RF	G	SOT-23	3K / 7" Reel	KL4

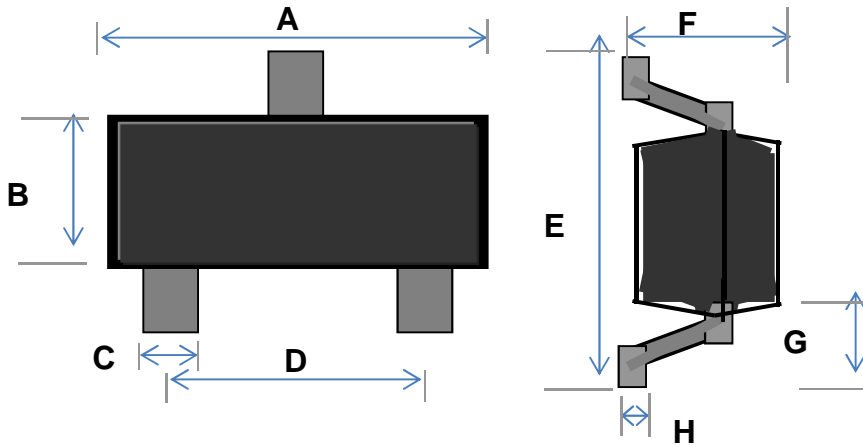
Note: Manufacture special control, if empty means no special control requirement.

**EXAMPLE**

PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
BAT54A RF	BAT54A		RF		
BAT54A-B0 RF	BAT54A	B0	RF		
BAT54A-D0 RF	BAT54A	D0	RF		
BAT54A-M0 RF	BAT54A	M0	RF		
BAT54A RFG	BAT54A		RF	G	Green compound
BAT54A-B0 RFG	BAT54A	B0	RF	G	Green compound
BAT54A-D0 RFG	BAT54A	D0	RF	G	Green compound
BAT54A-M0 RFG	BAT54A	M0	RF	G	Green compound

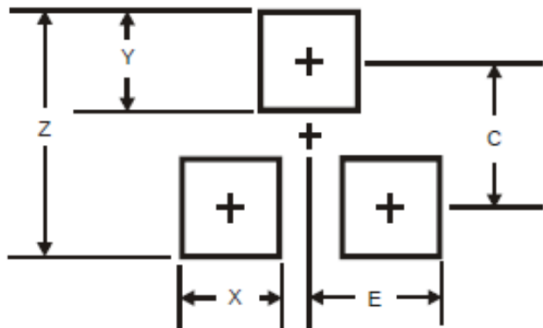
**Small Signal Product**

**DIMENSIONS**



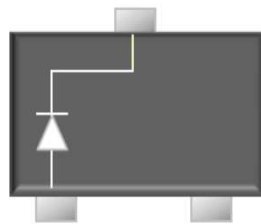
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.1 REF		0.004 REF	

**SUGGESTED PAD LAYOUT**

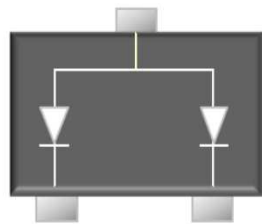


DIM.	Unit(mm)	Unit(inch)
	Typ.	Typ.
Z	2.9	0.114
X	0.8	0.031
Y	0.9	0.035
C	2.0	0.079
E	1.35	0.053

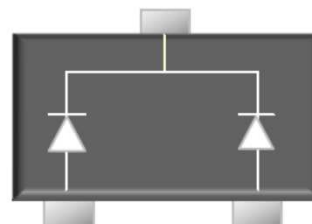
**PIN CONFIGURATION**



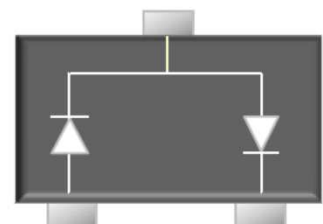
**BAT54**



**BAT54A**



**BAT54C**



**BAT54S**

**Small Signal Product****Notice**

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