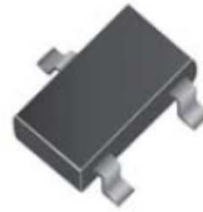


Small Signal Product

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

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

PARAMETER	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	V _(BR)	30	--	V
Forward Voltage	V _F	I _F =0.1mA	0.24	V
		I _F =1mA	0.32	V
		I _F =10mA	0.40	V
		I _F =30mA	0.50	V
		I _F =100mA	1.00	V
Reverse Current	I _R	--	2.0	μA
Total Capacitance	C _T	--	10	pF
Reverse Recovery Time	t _{rr}	--	5	ns

Small Signal Product

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

Fig. 1 Typical Forward Characteristics

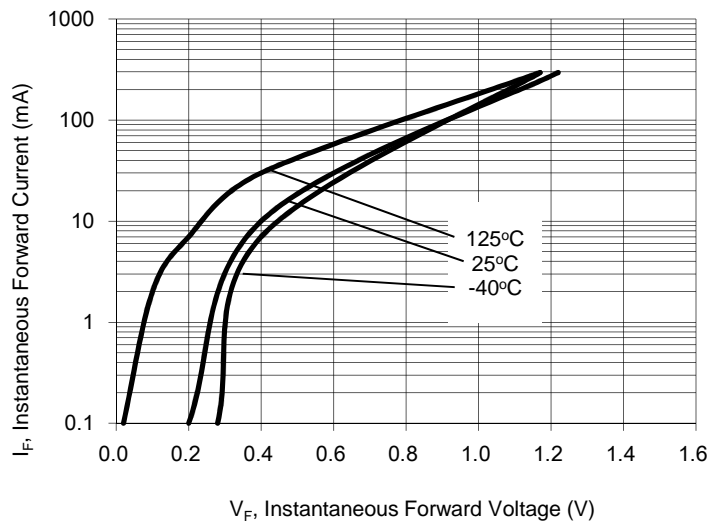


Fig. 2 Typical Reverse Characteristics

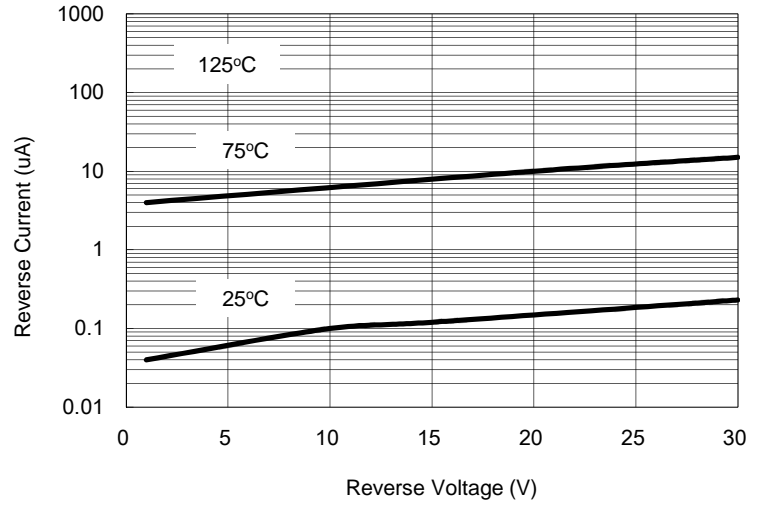


Fig. 3 Admissible Power Dissipation Curve

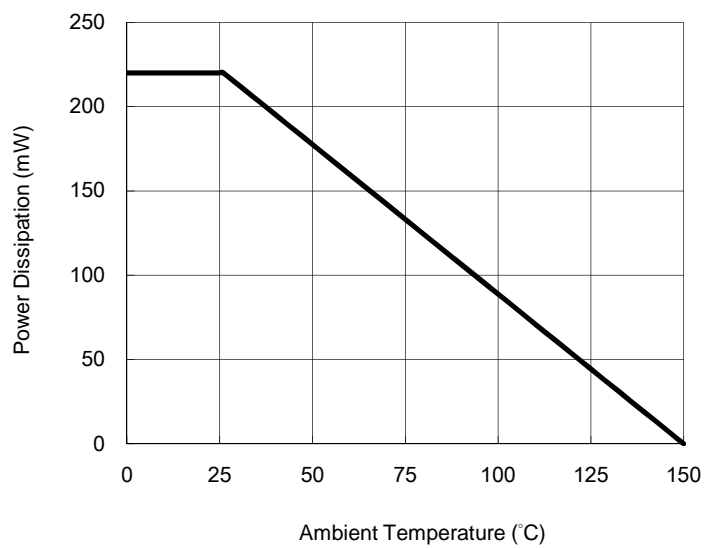
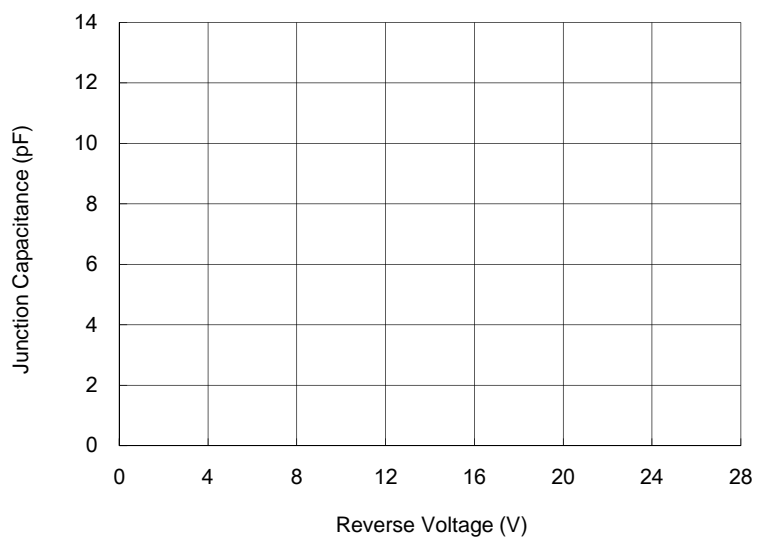


Fig. 4 Typical Junction Capacitance



Small Signal Product

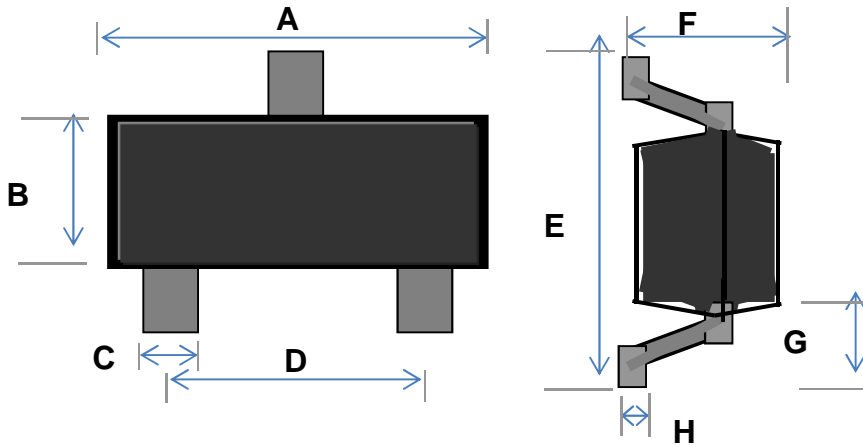
ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BAT54	(Note)	RF		SOT-23	3K / 7" Reel	KL1
BAT54A		RF		SOT-23	3K / 7" Reel	KL2
BAT54C		RF		SOT-23	3K / 7" Reel	KL3
BAT54S		RF		SOT-23	3K / 7" Reel	KL4
BAT54		RF	G	SOT-23	3K / 7" Reel	KL1
BAT54A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

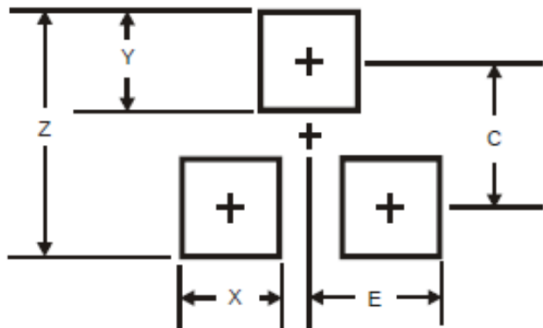
Small Signal Product

DIMENSIONS



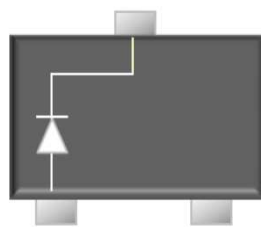
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.1 REF		0.004 REF	

SUGGESTED PAD LAYOUT

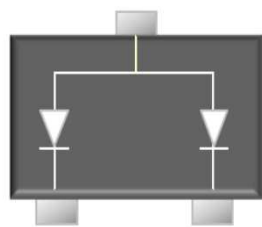


DIM.	Unit(mm)	Unit(inch)
	Typ.	Typ.
Z	2.9	0.114
X	0.8	0.031
Y	0.9	0.035
C	2.0	0.079
E	1.35	0.053

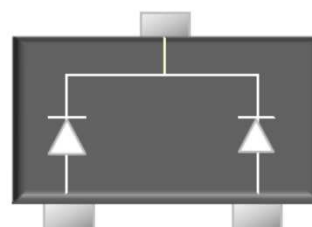
PIN CONFIGURATION



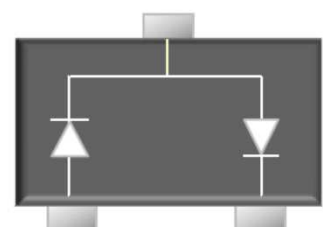
BAT54



BAT54A



BAT54C



BAT54S

Small Signal Product**Notice**

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors in accuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.