



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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 (t _p ≤ 1S; δ ≤ 0.5)	I _{FRM}	300	mA
Forward Surge Current @ t < 1.0s	I _{FSM}	600	mA
Power Dissipation	P _d	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	I _R =100μA	V _(BR)	30	--	V
Forward Voltage	I _F =0.1mA	V _F	--	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	V _R =25V	I _R	--	2.0	μA
Total Capacitance	V _R =1V, f=1.0MHz	C _T	--	10	pF
Reverse Recovery Time	I _F =I _R =10mA, R _L =100Ω, I _{RR} =1mA	t _{rr}	--	5	ns

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RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

Fig. 1 Typical Forward Characteristics

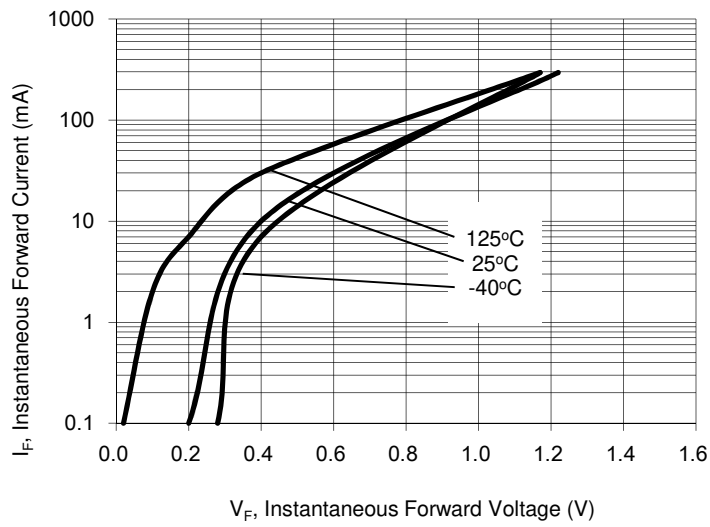


Fig. 2 Typical Reverse Characteristics

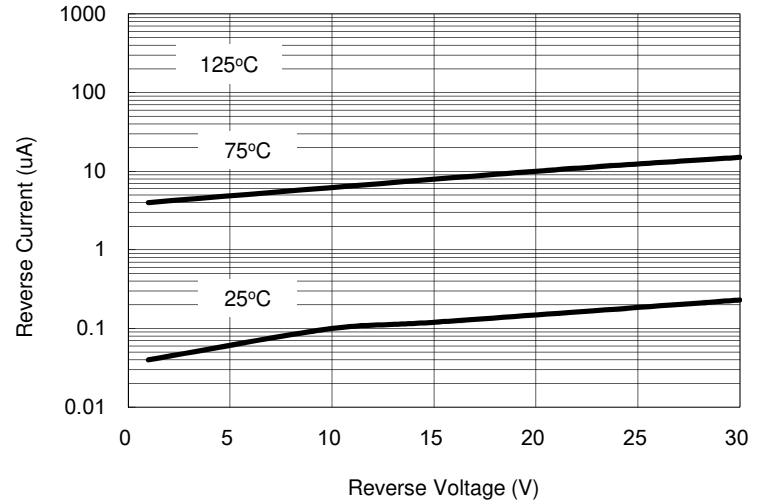


Fig. 3 Admissible Power Dissipation Curve

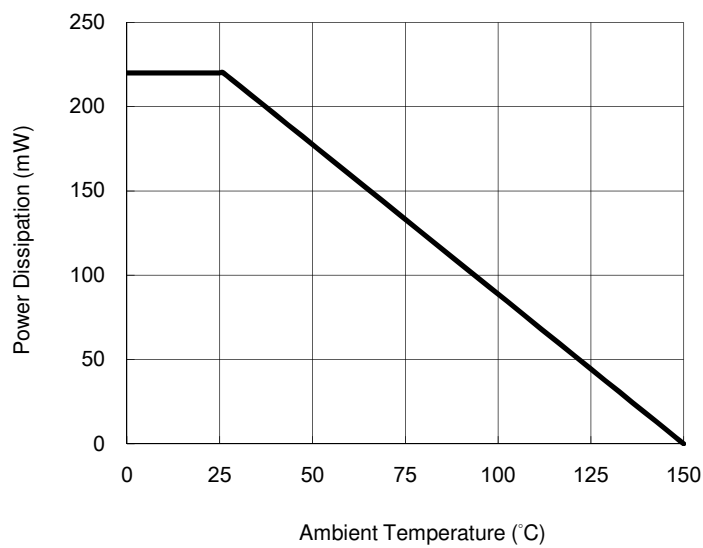
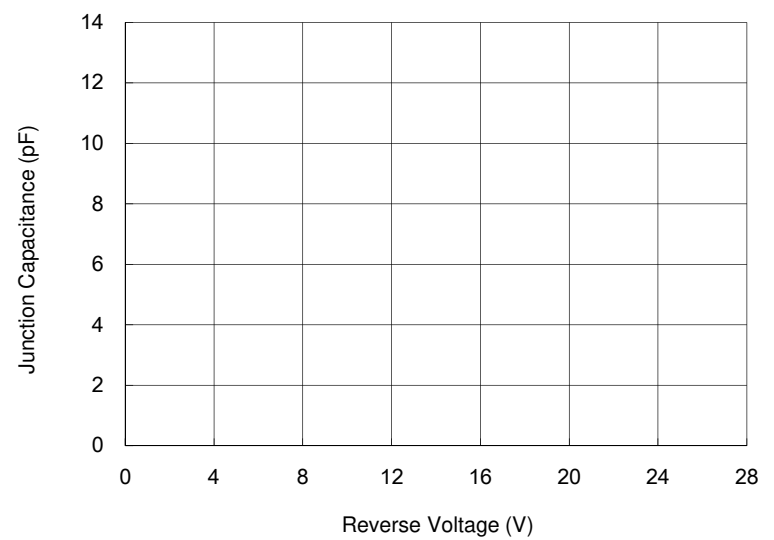


Fig. 4 Typical Junction Capacitance



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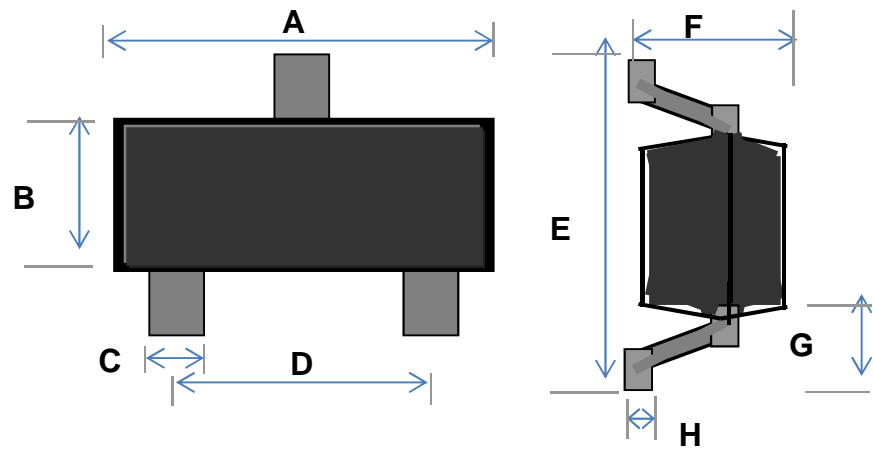
ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BAT54	(Note)	RF		SOT-23	3K / 7" Reel	KL1
BAT54A		RF		SOT-23	3K / 7" Reel	KL2
BAT54C		RF		SOT-23	3K / 7" Reel	KL3
BAT54S		RF		SOT-23	3K / 7" Reel	KL4
BAT54		RF	G	SOT-23	3K / 7" Reel	KL1
BAT54A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

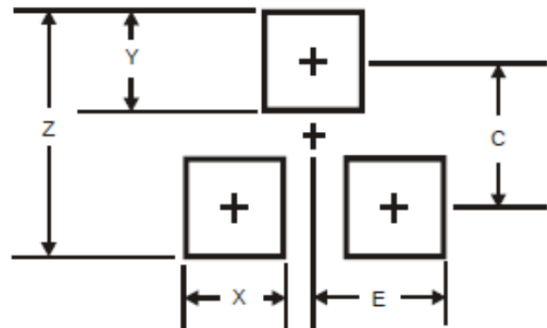
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DIMENSIONS



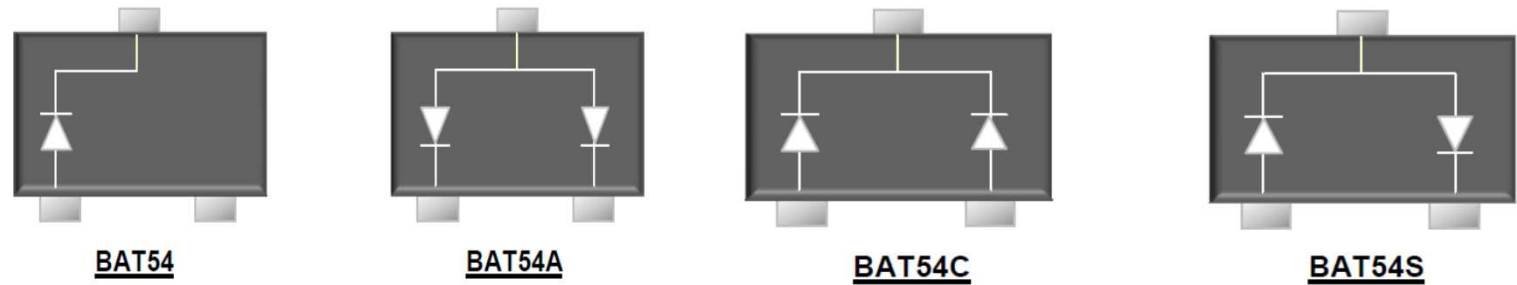
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.1 REF		0.004 REF	

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



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