

Small Signal Product

200mW Surface Mount Schottky Barrier Diode

FEATURES

- Fast switching speed
- Low forward voltage drop
- 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-363



MECHANICAL DATA

- Case: SOT-363 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: 0.006 gram (approximately)
- Marking Code: KLA, KL6, KL7, KL8, KLB

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	I _{FRM}	300	mA
Forward Surge Current @ t < 1.0 s	I _{FSM}	600	mA
Power Dissipation	P _D	200	mW
Thermal Resistance, Junction to Ambient Air	R _{θJA}	625	°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 =1mA	V _F	--	0.32	V
	I _F =10mA		--	0.40	
	I _F =30mA		--	0.50	
	I _F =100mA		--	1.00	
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}	--	5.0	nS

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RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Forward Characteristics

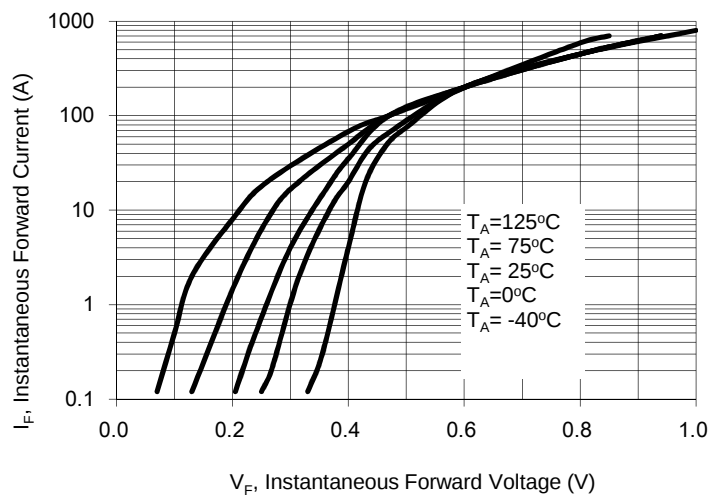


Fig. 2 Typical Reverse Characteristics

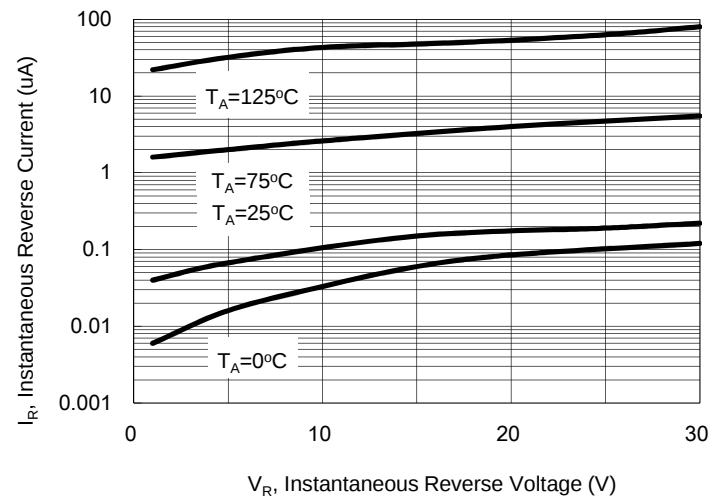


Fig. 3 Capacitance Between Terminals Characteristics

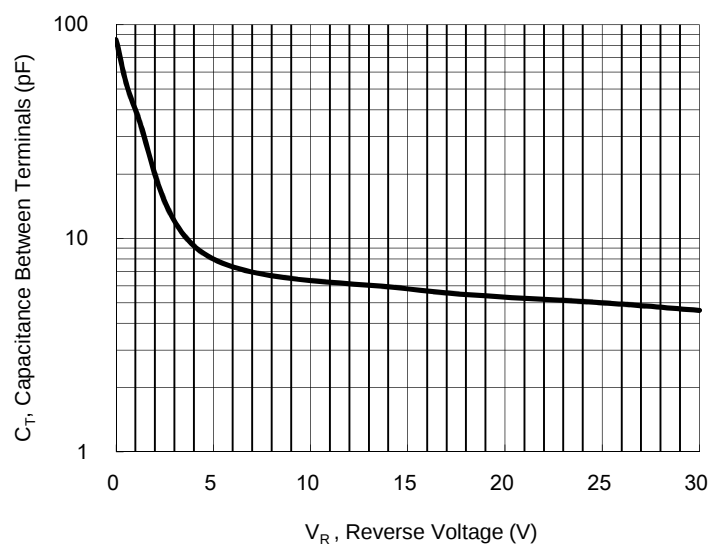
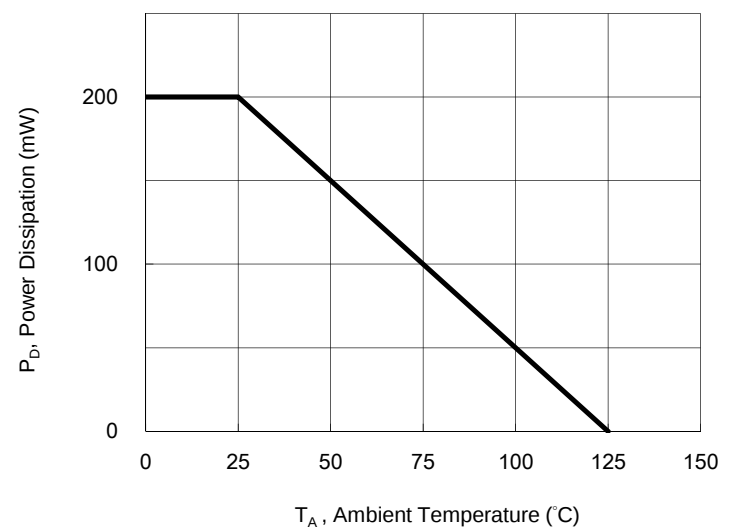


Fig. 4 Power Derating Curve



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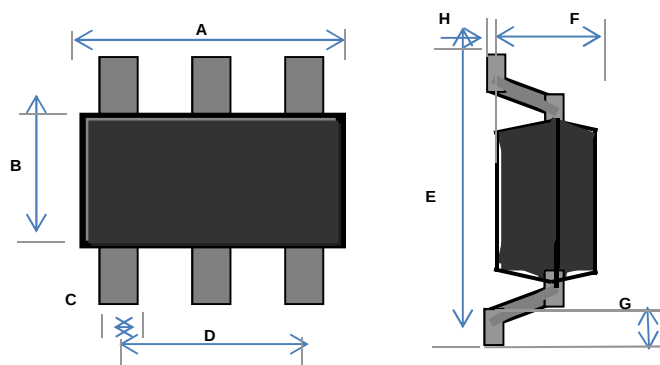
ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BAT54T	(Note)	RF	G	SOT-363	3K / 7" Reel	KLA
BAT54AD		RF	G	SOT-363	3K / 7" Reel	KL6
BAT54CD		RF	G	SOT-363	3K / 7" Reel	KL7
BAT54SD		RF	G	SOT-363	3K / 7" Reel	KL8
BAT54BR		RF	G	SOT-363	3K / 7" Reel	KLB

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
BAT54T RF	BAT54T		RF	G	Green compound
BAT54T-D0 RF	BAT54T	D0	RF	G	Green compound

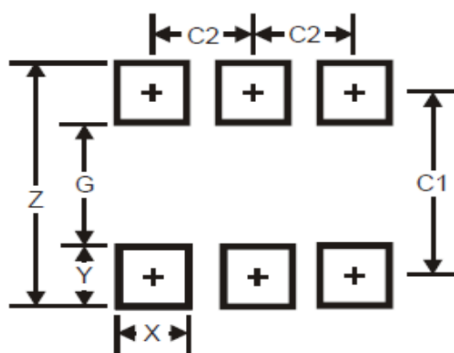
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DIMENSIONS



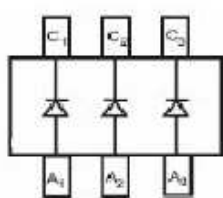
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.000	2.200	0.079	0.087
B	1.150	1.350	0.045	0.053
C	0.150	0.350	0.006	0.014
D	1.200	1.400	0.047	0.055
E	2.150	2.450	0.085	0.096
F	0.850	1.050	0.033	0.041
G	0.250	0.460	0.010	0.018
H	0.000	0.100	0.000	0.004

SUGGESTED PAD LAYOUT

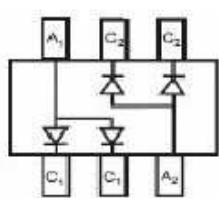


DIM	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	3.20	0.126
G	1.60	0.063
X	0.55	0.022
Y	0.80	0.031
C1	2.40	0.094
C2	0.95	0.037

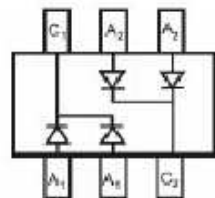
PIN CONFIGURATION



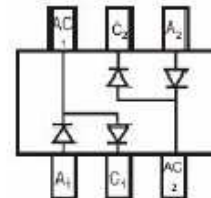
BAT54T



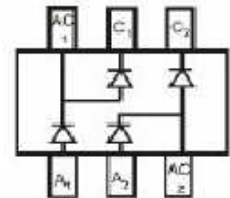
BAT54AD



BAT54CD



BAT54SD



BAT54BR

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