

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 ($T_A=25^{\circ}\text{C}$ 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	$R_{\theta JA}$	625	$^{\circ}\text{C/W}$
Operating and Storage temperature	T_j, T_{STG}	-55 to 125	$^{\circ}\text{C}$

PARAMETER		SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	$I_R=100\mu\text{A}$	$V_{(BR)}$	30	--	V
Forward Voltage	$I_F=1\text{mA}$	V_F	--	0.32	V
	$I_F=10\text{mA}$		--	0.40	
	$I_F=30\text{mA}$		--	0.50	
	$I_F=100\text{mA}$		--	1.00	
Reverse Current	$V_R=25\text{V}$	I_R	--	2.0	μA
Total Capacitance	$V_R=1\text{V}, f=1.0\text{MHz}$	C_T	--	10	pF
Reverse Recovery Time	$I_F=I_R=10\text{mA}, R_L=100\Omega, I_{RR}=1\text{mA}$	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

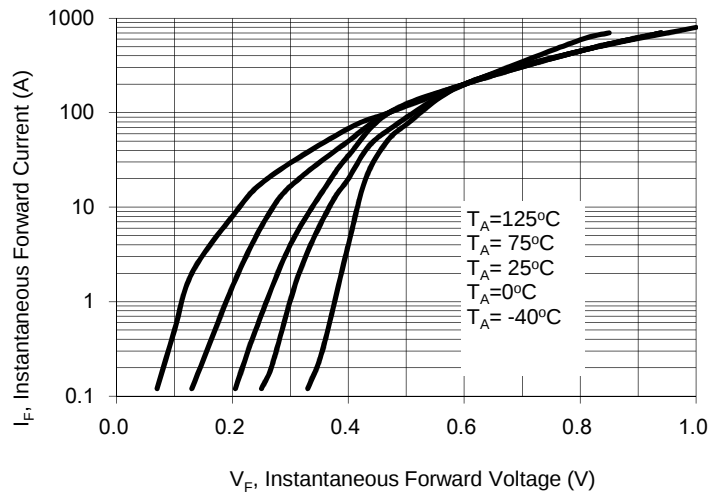


Fig. 2 Typical Reverse Characteristics

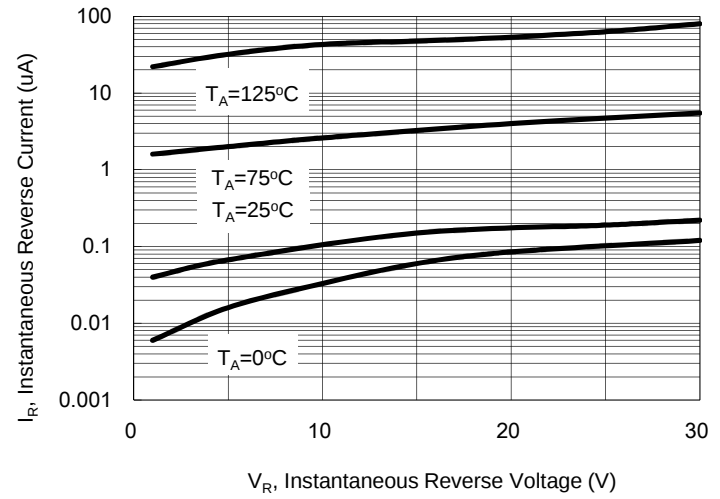


Fig. 3 Capacitance Between Terminals Characteristics

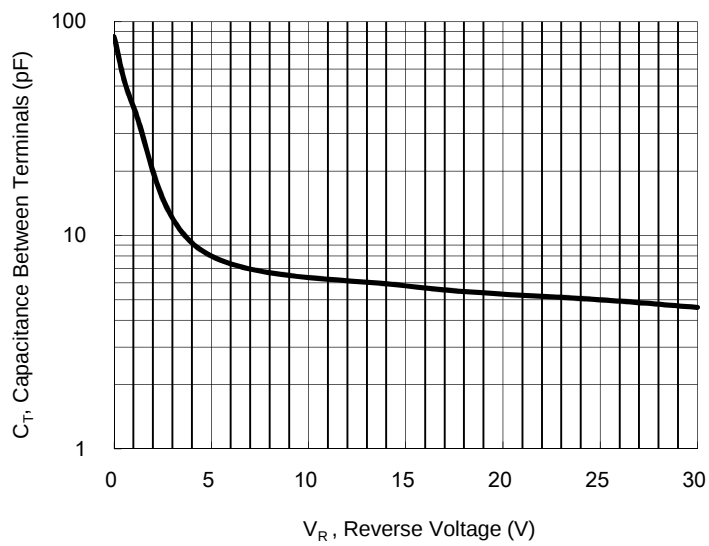
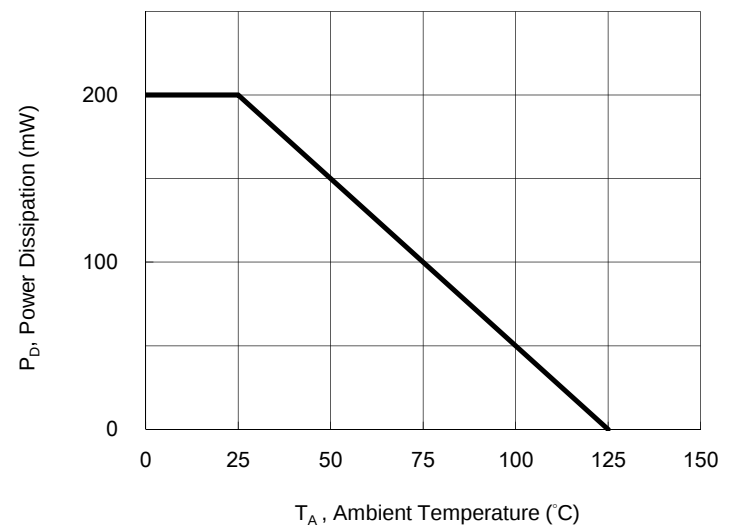


Fig. 4 Power Derating Curve



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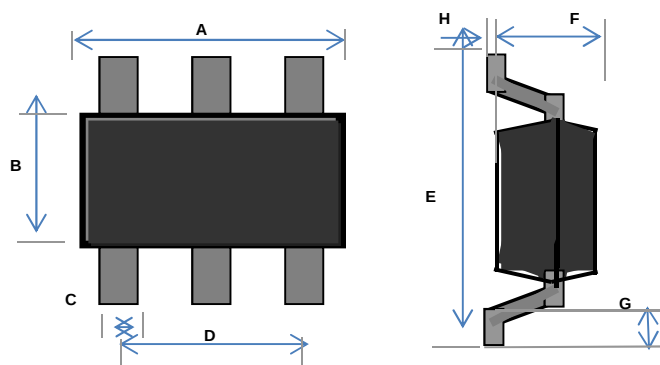
ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BAT54T	(Note)	RF	G	SOT-363	3K / 7" Reel	KLA
BAT54AD		RF	G	SOT-363	3K / 7" Reel	KL6
BAT54CD		RF	G	SOT-363	3K / 7" Reel	KL7
BAT54SD		RF	G	SOT-363	3K / 7" Reel	KL8
BAT54BR		RF	G	SOT-363	3K / 7"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

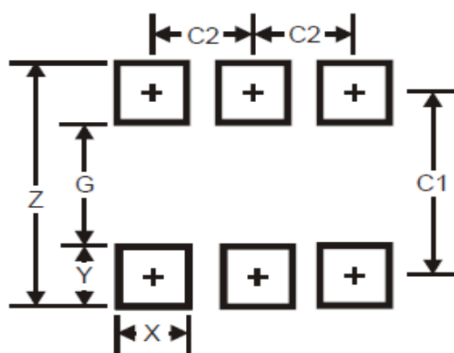
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DIMENSIONS



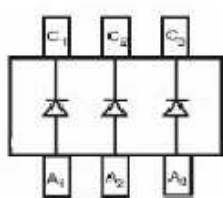
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.000	2.200	0.079	0.087
B	1.150	1.350	0.045	0.053
C	0.150	0.350	0.006	0.014
D	1.200	1.400	0.047	0.055
E	2.150	2.450	0.085	0.096
F	0.850	1.050	0.033	0.041
G	0.250	0.460	0.010	0.018
H	0.000	0.100	0.000	0.004

SUGGESTED PAD LAYOUT

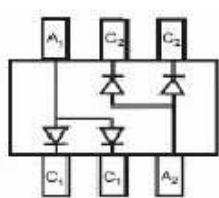


DIM	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	3.20	0.126
G	1.60	0.063
X	0.55	0.022
Y	0.80	0.031
C1	2.40	0.094
C2	0.95	0.037

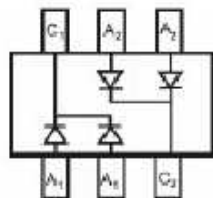
PIN CONFIGURATION



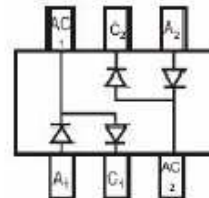
BAT54T



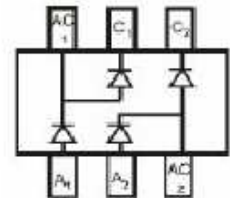
BAT54AD



BAT54CD



BAT54SD



BAT54BR

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