

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
- Packing code with suffix "G" means green compound (halogen free)



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: 6 mg (approximately)

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}	-65 to +150	°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	
	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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ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
BAT54xx-G (Note 1)	RF	G	SOT-363	3K / 7" Reel

Note 1: "xx" defines device code from "T" to "BR"

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
BAT54T-G RFG	BAT54T-G	RF	G	Green compound

RATINGS AND CHARACTERISTICS CURVES
(T_A=25°C unless otherwise noted)

Fig. 1 Forward Characteristics

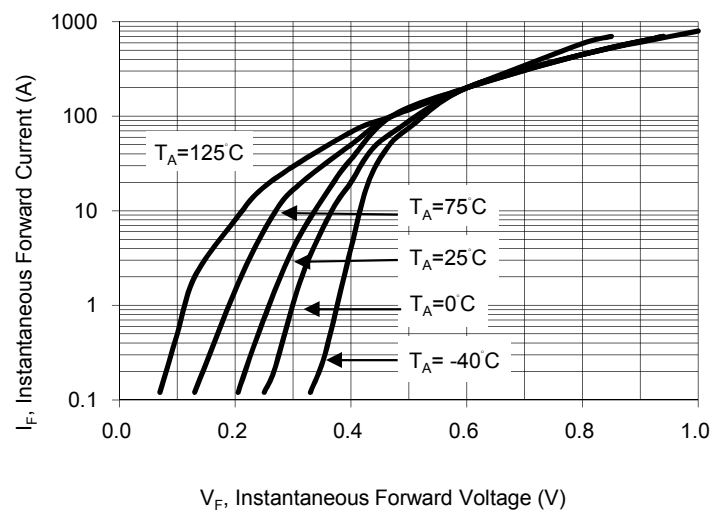


Fig. 2 Typical Reverse Characteristics

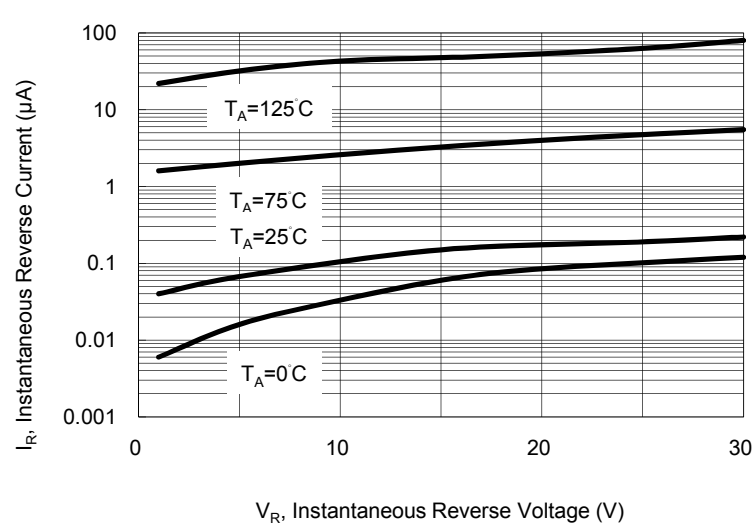


Fig. 3 Capacitance Between Terminals Characteristics

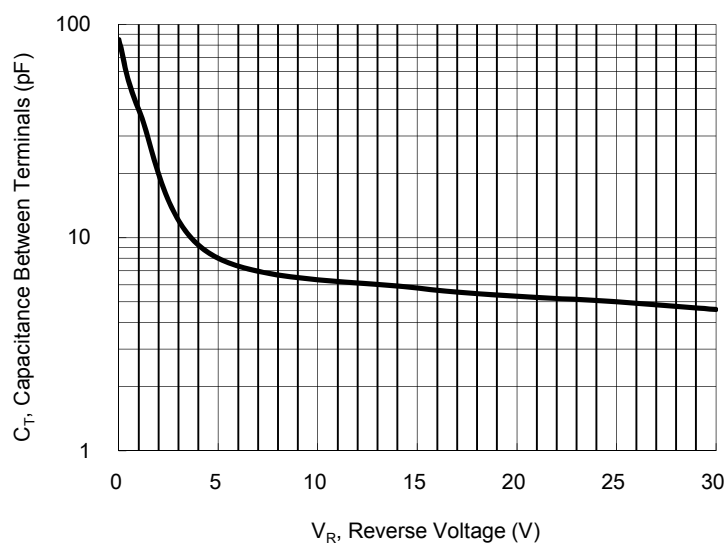
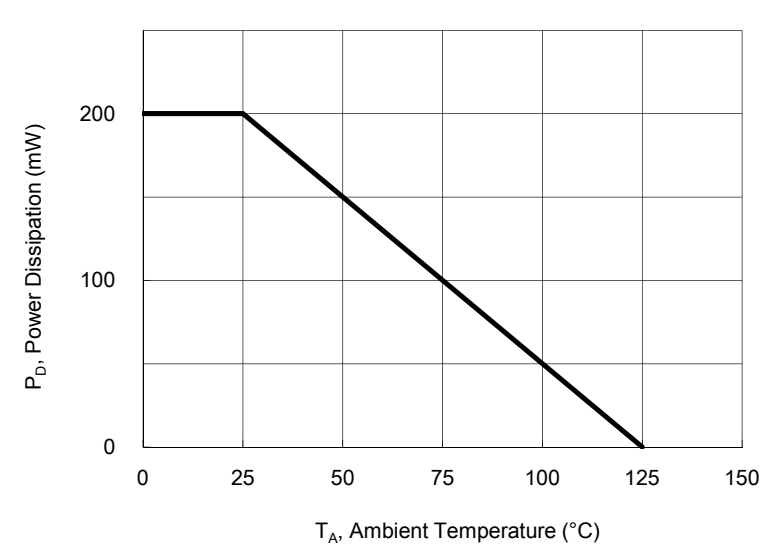
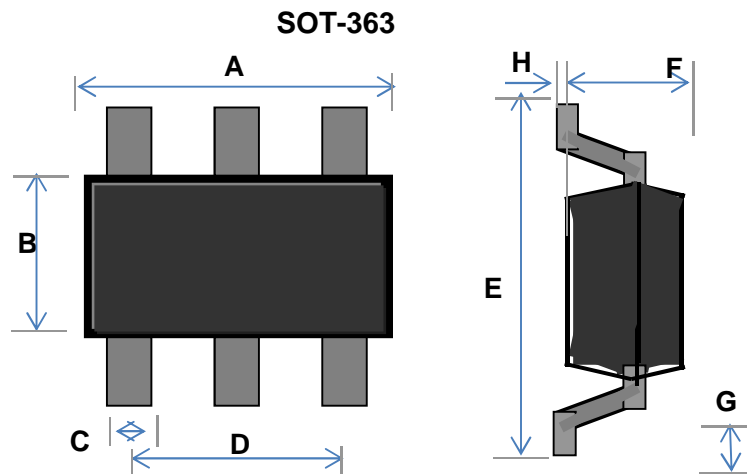


Fig. 4 Power Derating Curve



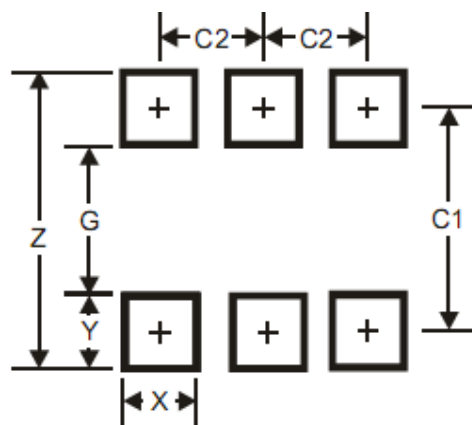
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DIMENSIONS



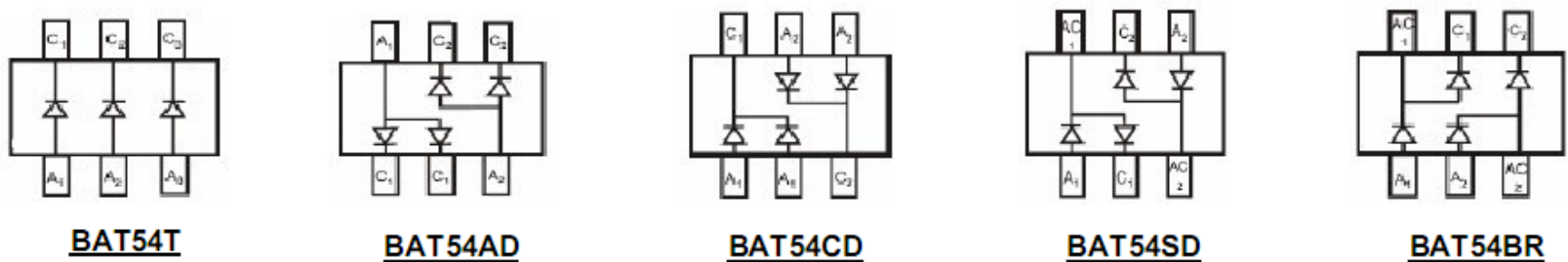
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.00	2.20	0.079	0.087
B	1.15	1.35	0.045	0.053
C	0.10	0.35	0.004	0.014
D	1.20	1.40	0.047	0.055
E	2.15	2.45	0.085	0.096
F	0.85	1.05	0.033	0.041
G	0.25	0.46	0.010	0.018
H	0.00	0.10	0.000	0.004

SUGGESTED PAD LAYOUT



Dimensions	Value (in mm)
Z	2.50
G	1.30
X	0.42
Y	0.60
C1	1.90
C2	0.65

PIN CONFIGURATION



MARKING CODE

Part NO.	Marking
BAT54T-G	KLA
BAT54AD-G	KL6
BAT54CD-G	KL7
BAT54SD-G	KL8
BAT54BR-G	KLB

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