

## SCHOTTKY BARRIER DIODE

These Schottky barrier diodes are designed for high speed applications, circuit protection, and voltage clamping. Extremely low forward voltage reduces conduction loss. Miniature surface package is excellent for hand held and portable applications space is limited.

### ● FEATURES

- 1)Extremely Fast Switching Speed
- 2) Low Forward Voltage — 0.35 Volts (Typ) @  $I_F = 10 \text{ mAdc}$
- 3)We declare that the material of product compliant with RoHS requirements and Halogen Free.
- 4)S- Prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

### ● DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LBAT54ALT1G	B6	3000/Tape&Reel
LBAT54ALT3G	B6	10000/Tape&Reel

### ● MAXIMUM RATINGS( $T_a = 25^\circ\text{C}$ )

Rating	Symbol	Limits	Unit
DC reverse voltage	$V_R$	30	V
Forward Power Dissipation @ $T_A = 25^\circ\text{C}$	$P_F$	225	mW
Derate above $25^\circ\text{C}$		1.8	mW/ $^\circ\text{C}$
DC forward current	$I_F$	200Max	mA
Junction temperature	$T_J$	125Max	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

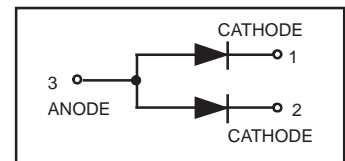
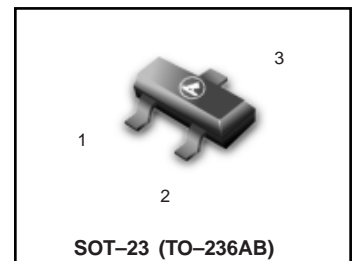
### ● ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	30	—	—	V	$I_R = 10 \mu\text{A}$
Total Capacitance	$C_T$	—	—	10	pF	$V_R = 1.0 \text{ V}, f = 1.0 \text{ MHz}$
Reverse current	$I_R$	—	0.5	2	$\mu\text{A}$	$V_R = 25 \text{ V}$
Forward voltage	$V_F$	—	0.22	0.24	V	$I_F = 0.1 \text{ mA}$
Forward voltage	$V_F$	—	0.29	0.32	V	$I_F = 1 \text{ mA}$
Forward voltage	$V_F$	—	0.35	0.4	V	$I_F = 10 \text{ mA}$
Forward voltage	$V_F$	—	0.41	0.5	V	$I_F = 30 \text{ mA}$
Forward voltage	$V_F$	—	0.52	1	V	$I_F = 100 \text{ mA}$
Reverse Recovery Time	$t_{rr}$	—	—	5	ns	$I_F = I_R = 10 \text{ mA}, I_{R(REC)} = 1.0 \text{ mA}$
Repetitive Peak Forward Current	$I_{FRM}$	—	—	300	mA	
Non-Repetitive Peak Forward Current	$I_{FSM}$	—	—	600	mA	( $t < 1.0 \text{ s}$ )

## LBAT54ALT1G

## S-LBAT54ALT1G

30 VOLTS SCHOTTKY BARRIER  
DETECTOR AND SWITCHING  
DIODES



# LBAT54ALT1G,S-LBAT54ALT1G

## ELECTRICAL CHARACTERISTIC CURVES

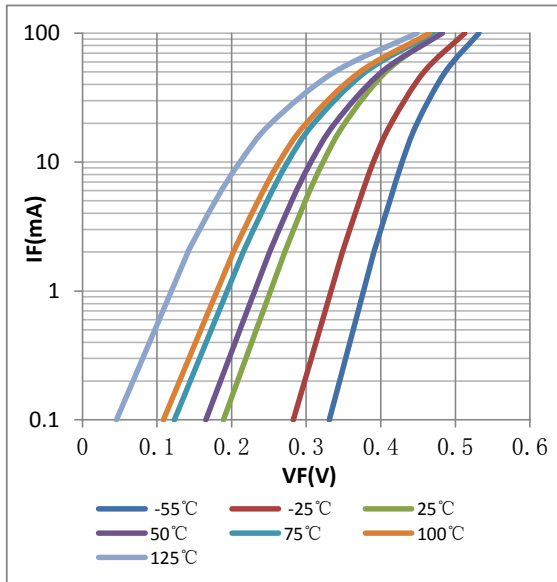


FIG. 1 Forward Characteristics

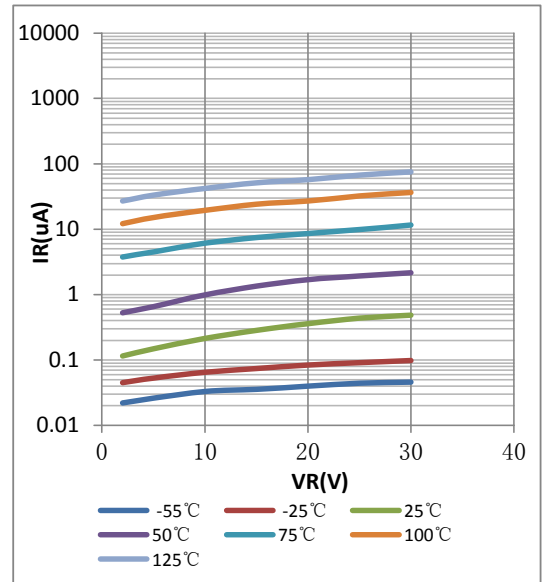


FIG. 2 Reverse Characteristics

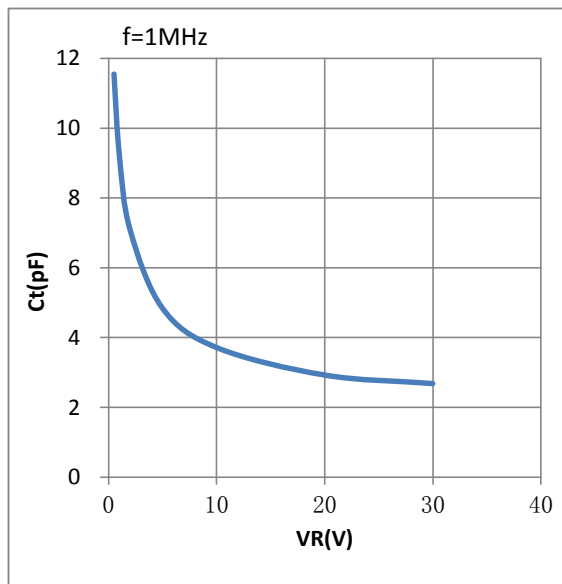
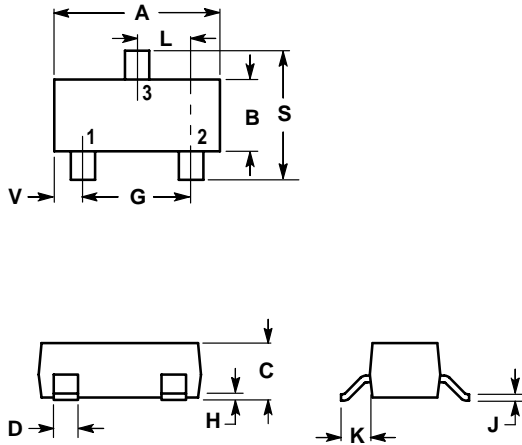


FIG. 3 Capacitance

# LBAT54ALT1G,S-LBAT54ALT1G

## SOT-23

Dimension Outline:



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

Soldering Footprint:

