

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°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	$^\circ\text{C}$

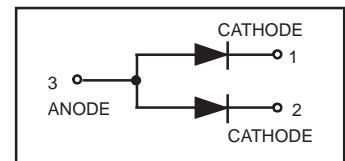
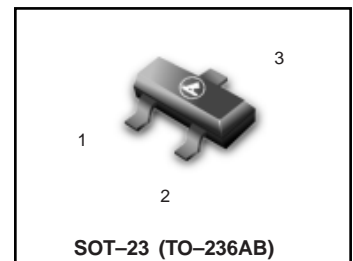
● ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

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	μA	$V_R = 25 \text{ V}$
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

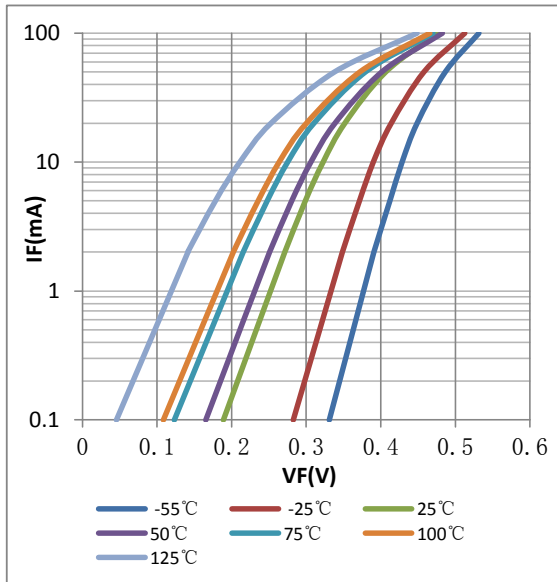


FIG. 1 Forward Characteristics

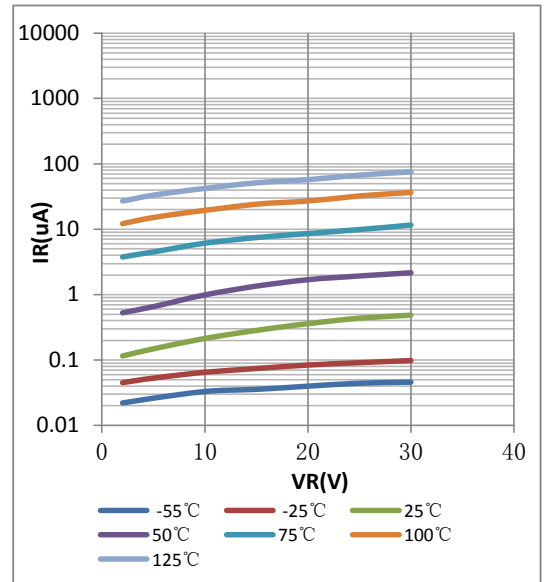


FIG. 2 Reverse Characteristics

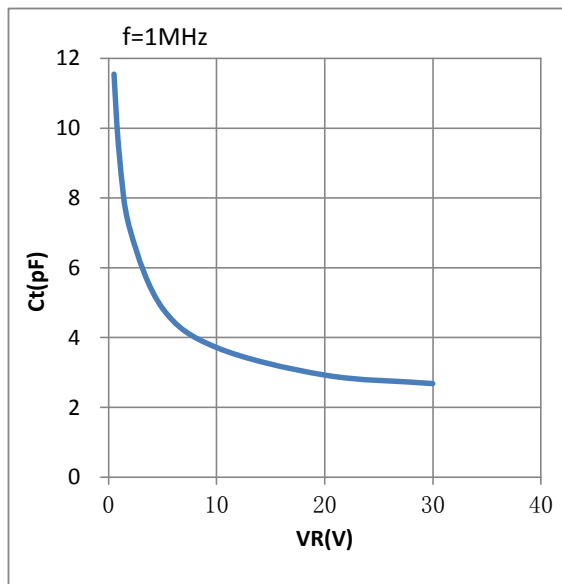
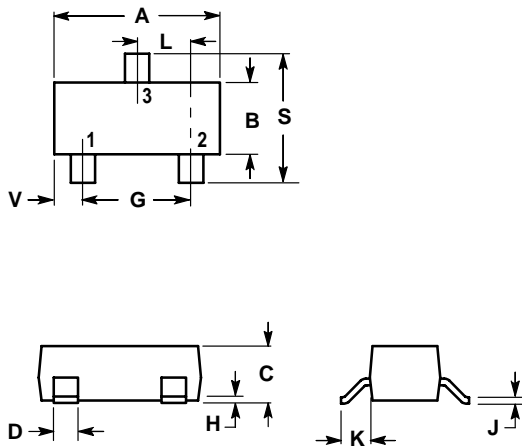


FIG. 3 Capacitance

LBAT54ALT1G,S-LBAT54ALT1G

SOT-23

Dimension Outline:

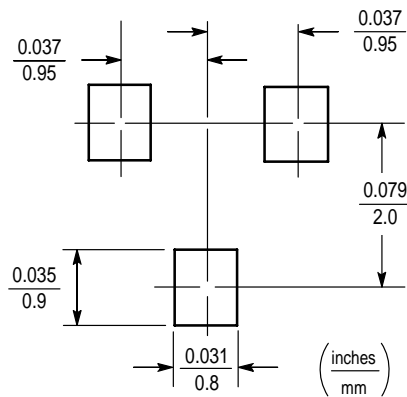


NOTES:

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:



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