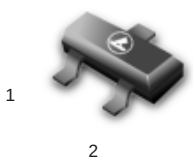
SCHOTTKY BARRIER DIODE

LBAT54ALT1G

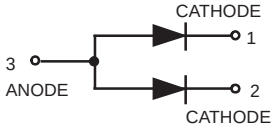
S-LBAT54ALT1G

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.

30 VOLTS SCHOTTKY BARRIER DETECTOR AND SWITCHING DIODES



SOT–23 (TO–236AB)



●FEATURES

1)Extremely Fast Switching Speed
2) Low Forward Voltage — 0.35 Volts (Typ) @ I_F = 10 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(Ta = 25℃)

Rating	Symbol	Limits	Unit
DC reverse voltage	V_R	30	V
Forward Power Dissipation @T_A = 25°C Derate above 25°C	P_F	 225 1.8	 mW mW/°C
DC forward current	I_F	200Max	mA
Junction temperature	T_J	125Max	℃
Storage temperature	Tstg	−55～+150	℃

●ELECTRICAL CHARACTERISTICS (Ta= 25℃)

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

LBAT54ALT1G,S-LBAT54ALT1G

ELECTRICAL CHARACTERISTIC CURVES

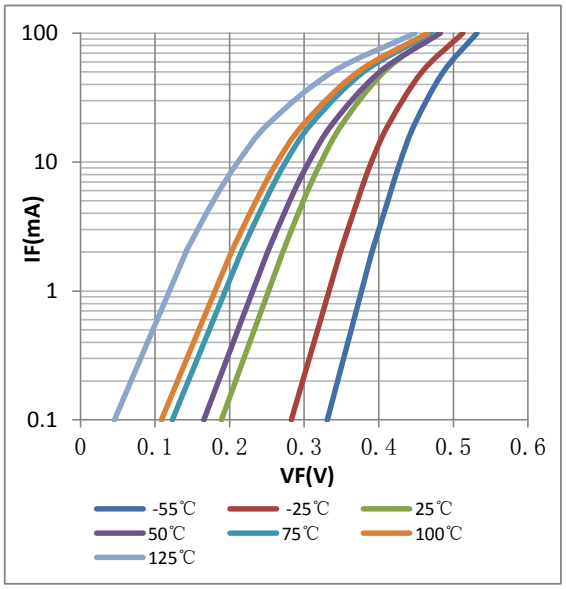


FIG. 1 Forward Characteristics

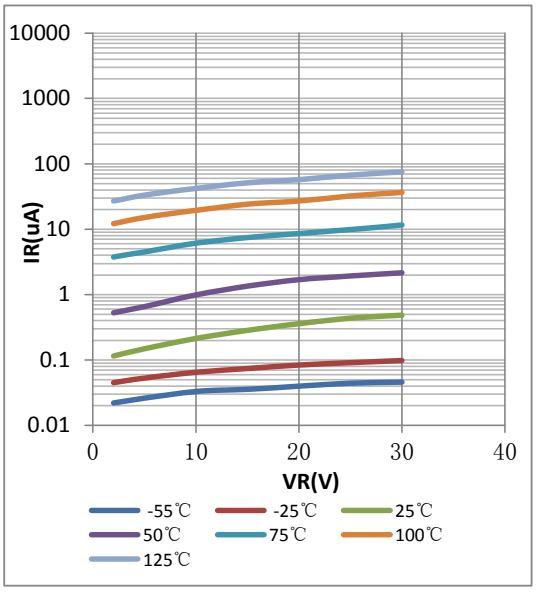


FIG. 2 Reverse Characteristics

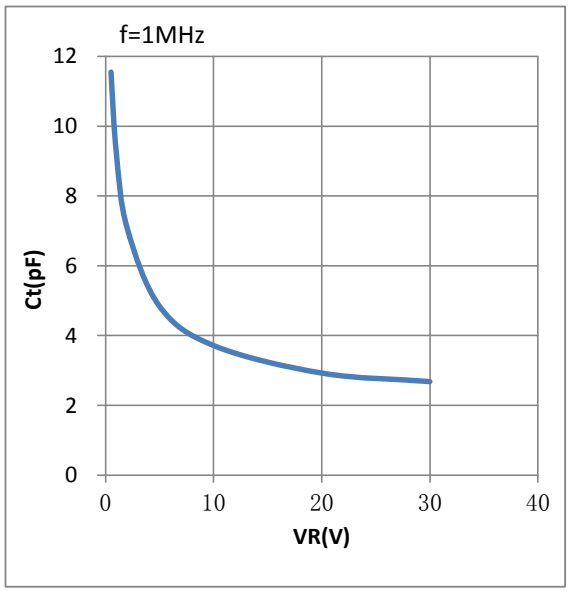
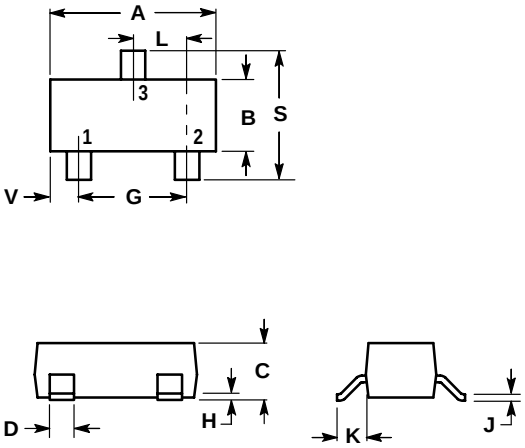


FIG. 3 Capacitance

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: