

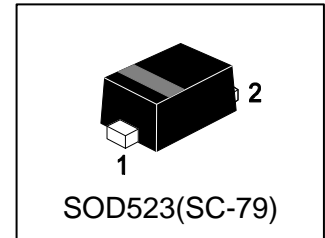
# LBAT54XV2T1G

## S-LBAT54XV2T1G

### Schottky Barrier Diode

#### 1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.
- Extremely Fast Switching Speed
- Low Forward Voltage — 0.35 V (Typ) @ IF = 10 Ma



#### 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LBAT54XV2T1G	JV	3000/Tape&Reel
LBAT54XV2T3G	JV	10000/Tape&Reel

#### 3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Reverse Voltage	VR	30	V

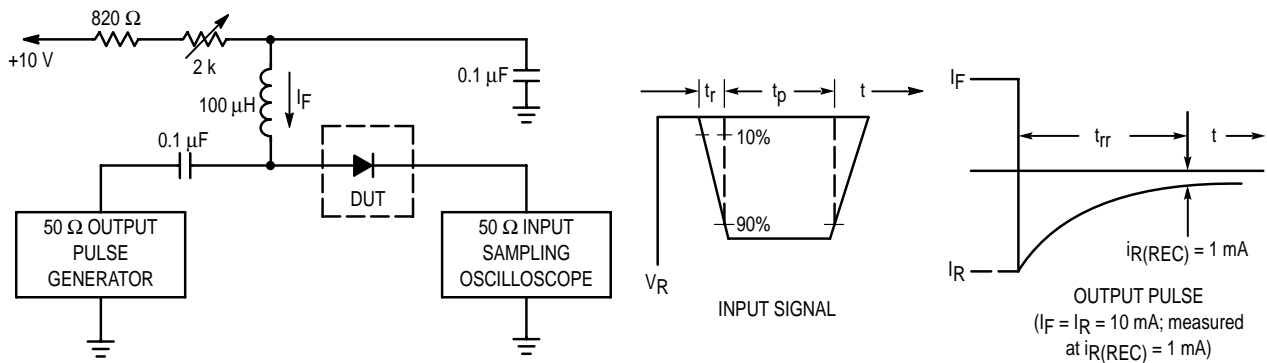
#### 4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-5 Board (Note 1) @ TA = 25°C Derate above 25°C	PD	200 1.57	mW mW/°C
Thermal Resistance, Junction-to-Ambient	ROJA	635	°C/W
Junction and Storage temperature	TJ, Tstg	-40 ~ +125	°C

1. FR-5 = 1.0×0.75×0.062 in.

**5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)**

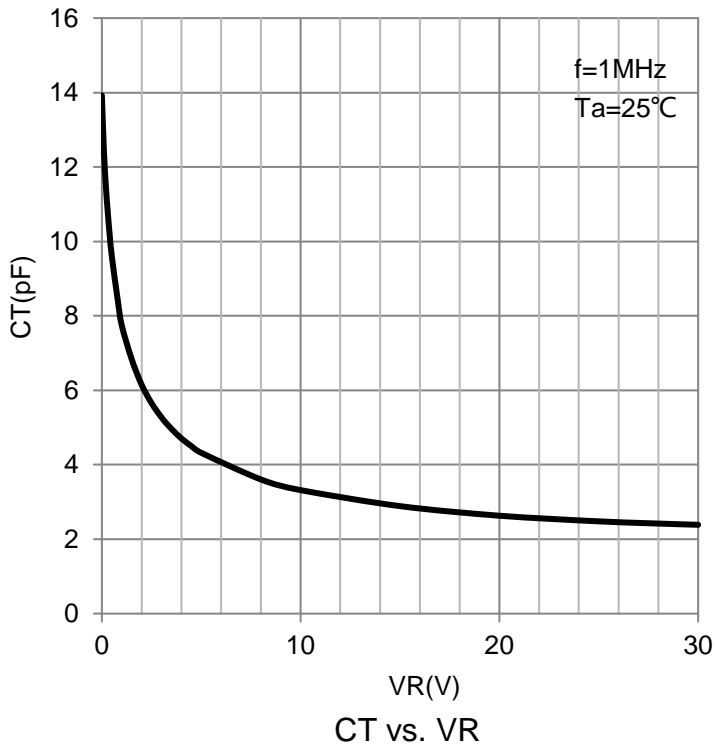
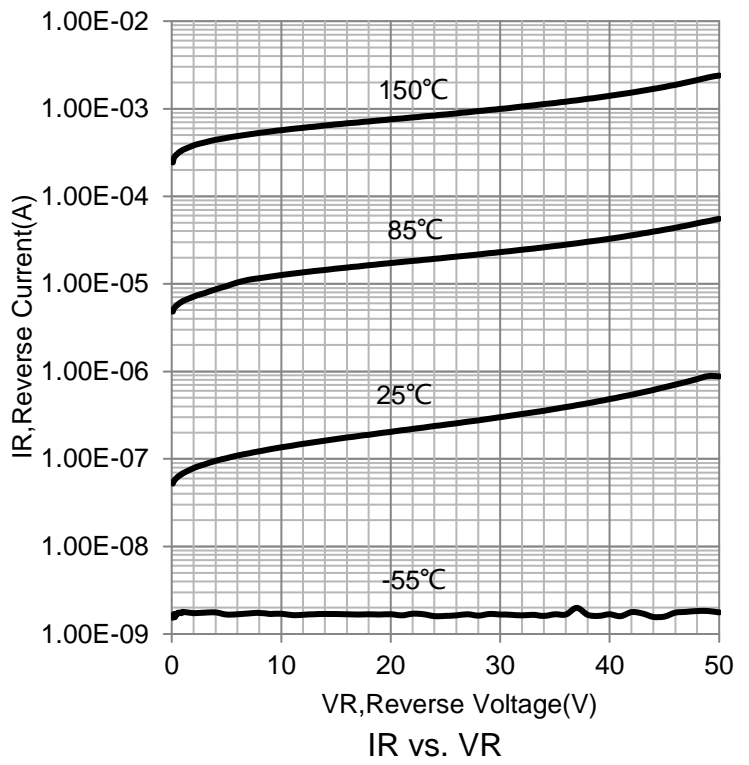
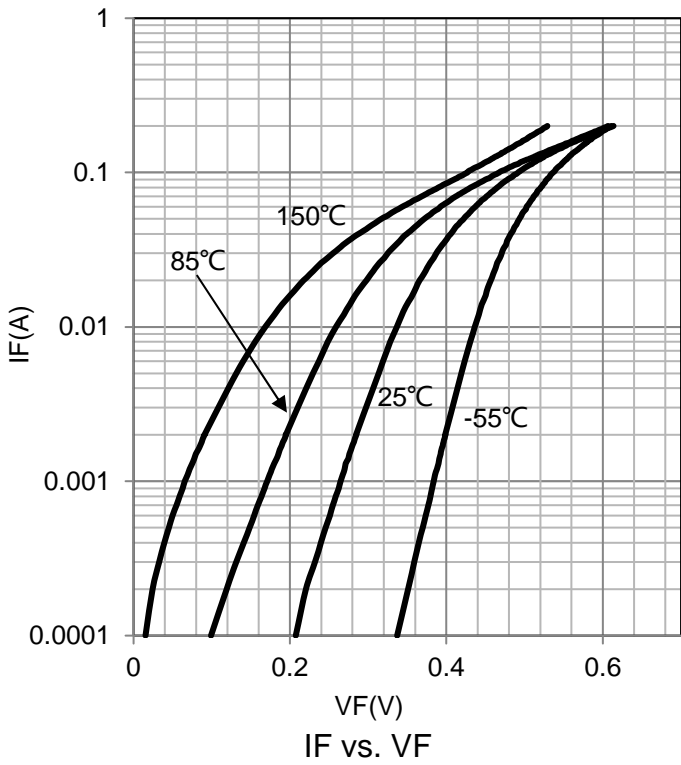
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage (IR = 10 μA)	VBR	30	-	-	V
Total Capacitance (VR = 1.0 V, f = 1.0 MHz)	CT	-	-	10	pF
Reverse Leakage (VR = 25 V)	IR	-	0.5	2	μA
Forward voltage (IF = 0.1mA) (IF = 1mA) (IF = 10mA) (IF = 30mA) (IF = 100mA)	VF	- - - - -	0.22 0.29 0.35 0.41 0.52	0.24 0.32 0.4 0.5 1	V
Reverse Recovery Time (IF = IR = 10 mA, IR(REC) = 1.0 mA)	trr	-	-	5	nS
Forward Current (DC)	IF	-	-	200	mA
Repetitive Peak Forward Current	IFRM	-	-	300	mA
Non-Repetitive Peak Forward Current (t < 1.0 s)	IFSM	-	-	600	mA



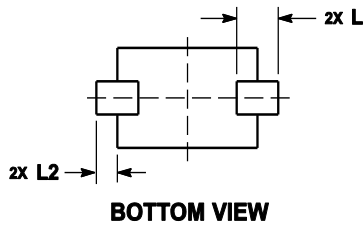
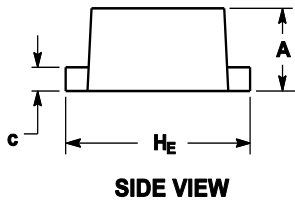
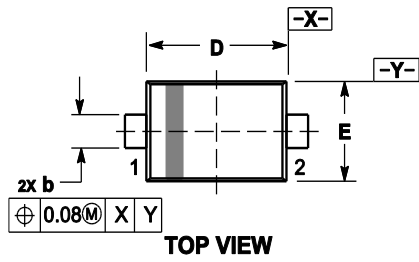
- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current ( $I_F$ ) of 10 mA.  
2. Input pulse is adjusted so  $I_{R(\text{peak})}$  is equal to 10 mA.  
3.  $t_p \gg t_{rr}$

**RECOVERY TIME EQUIVALENT TEST CIRCUIT**

**6.ELECTRICAL CHARACTERISTICS CURVES**



### 7. OUTLINE AND DIMENSIONS



Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.60	0.70	0.020	0.024	0.028
b	0.25	0.30	0.35	0.010	0.012	0.014
c	0.07	0.14	0.20	0.003	0.006	0.008
D	1.10	1.20	1.30	0.043	0.047	0.051
E	0.70	0.80	0.90	0.028	0.031	0.035
H <sub>E</sub>	1.50	1.60	1.70	0.059	0.063	0.067
L	0.30 REF			0.012 REF		
L <sub>2</sub>	0.15	0.20	0.25	0.006	0.008	0.010

### 8. SOLDERING FOOTPRINT

