

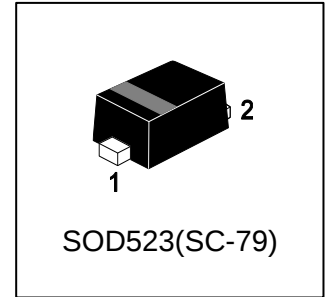
LBAS516T1G

S-LBAS516T1G

High-speed 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.
- Ultra small plastic SMD package
- High switching speed: max. 4 ns
- Continuous reverse voltage: max. 100 V
- Repetitive peak reverse voltage: max. 100 V
- Repetitive peak forward current: max. 500 mA.



2. APPLICATIONS

- High-speed switching in e.g. surface mounted circuits.

3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LBAS516T1G	6	3000/Tape&Reel
LBAS516T5G	6	8000/Tape&Reel

4. MAXIMUM RATINGS(In accordance with the Absolute Maximum Rating System IEC134)

Parameter	Symbol	Limit	Unit
repetitive peak reverse voltage	VRRM	100	V
continuous reverse voltage	VR	100	V
continuous forward current	IF	250	mA
repetitive peak forward current	IFRM	500	mA
non-repetitive peak forward current(square wave; Tj=25°C prior to surge)	IFSM	4	A
(t =1μs)		1	A
(t =1ms)		0.5	A
(t =1s)			
storage temperature	Tstg	-65~+150	°C
junction temperature	Tj	150	°C

5. THERMAL CHARACTERISTICS

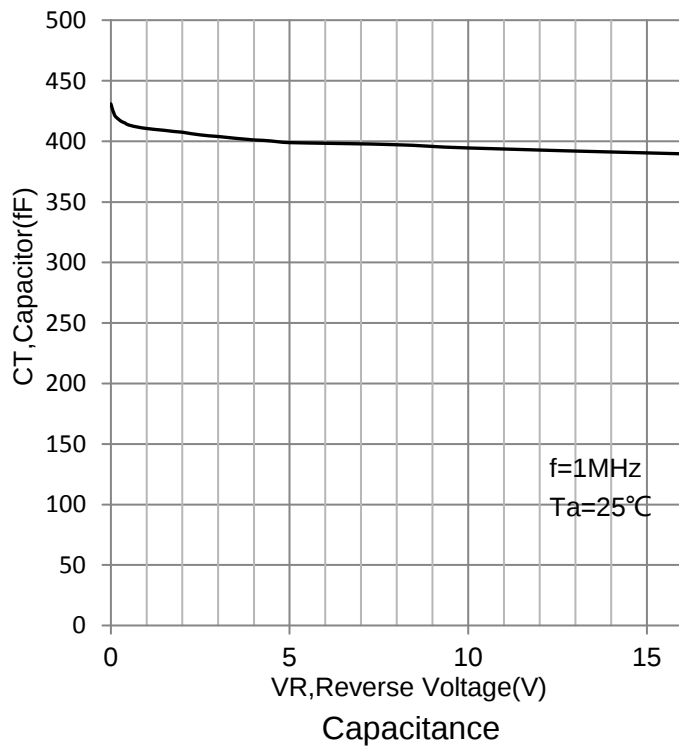
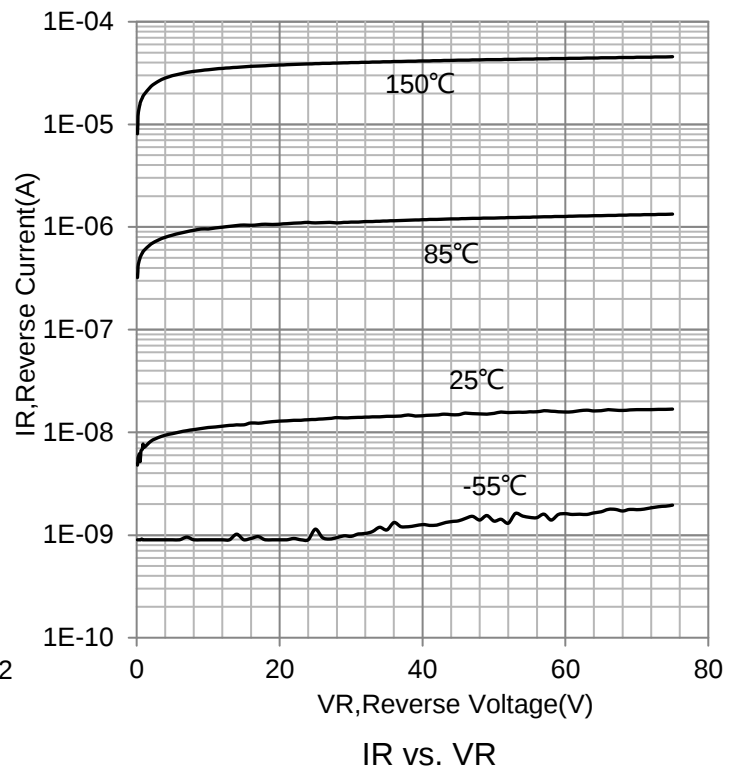
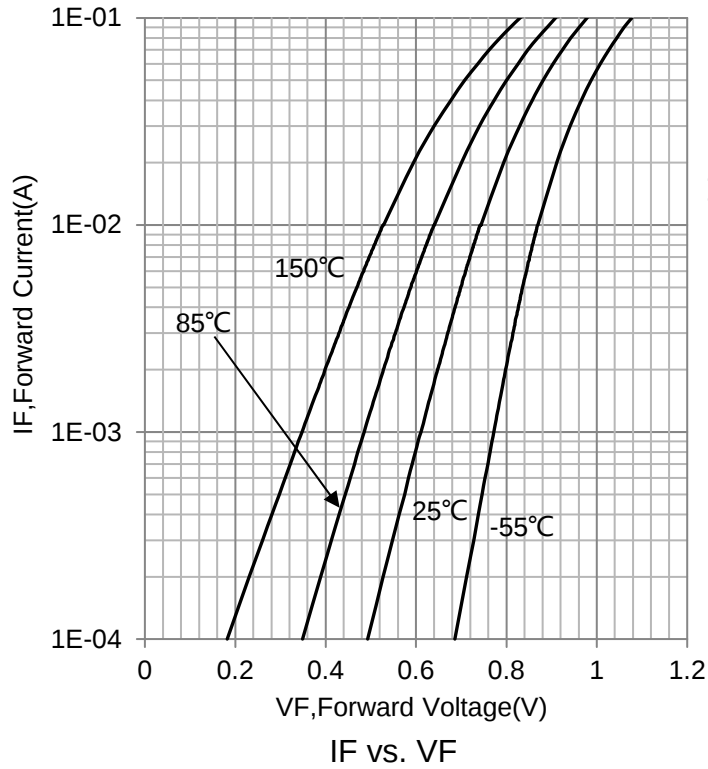
Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-5 Board (Note 1) @ TA = 25°C	PD	200	mW
Derate above 25°C		1.6	mW/°C
Thermal Resistance, Junction-to-Ambient(Note 1)	RθJA	625	°C/W

1. FR-5 = 1.0×0.75×0.062 in.

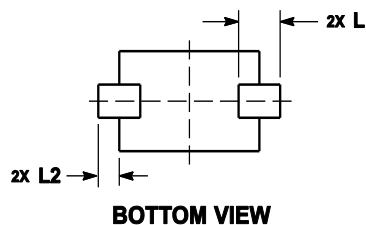
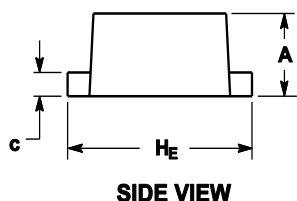
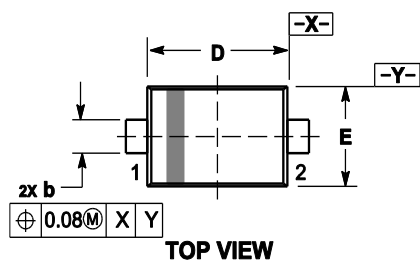
6. ELECTRICAL CHARACTERISTICS (T_j =25°C unless otherwise specified.)

Parameter	Symbol	MIN	MAX	Unit
Reverse Breakdown Voltage (I(BR)=100μA)	VBR	100	-	V
Forward Voltage (IF= 1mA)	VF	-	715	mV
(IF= 10mA)		-	855	mV
(IF= 50mA)		-	1	V
(IF= 150mA)		-	1.25	V
Reverse Current (VR = 25 V)	IR	-	30	nA
(VR = 80 V)		-	0.5	μA
(VR = 25 V, T _j = 150°C)		-	30	μA
(VR = 75 V, T _j = 150°C)		-	50	μA
Diode Capacitance (f=1MHz, VR = 0)	Cd	-	1	pF
Reverse Recovery Time (When switched from IF=10mA to IR = 10mA; RL=100Ohm; measured at IR = 1mA)	trr	-	4	nS
Forward Recovery Voltage (when switched from IF=10mA; tr=20 ns)	Vfr	-	1.75	V

7.ELECTRICAL CHARACTERISTICS CURVES



8.OUTLINE AND DIMENSIONS

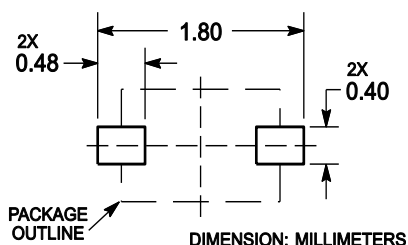


Notes:

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 _E	1.50	1.60	1.70	0.059	0.063	0.067
L	0.30 REF			0.012 REF		
L ₂	0.15	0.20	0.25	0.006	0.008	0.010

9.SOLDERING FOOTPRINT



DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
- Before you use our Products for new Project, you are requested to carefully read this document and fully understand its contents. LRC shall not be in any way responsible or liable for failure, malfunction or accident arising from the use of any LRC's Products against warning, caution or note contained in this document.
- All information contained in this document is current as of the issuing date and subject to change without any prior notice. Before purchasing or using LRC's Products, please confirm the latest information with a LRC sales representative.