

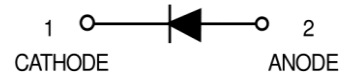
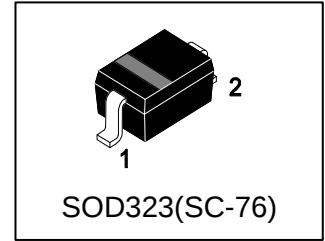
LBAS316T1G

S-LBAS316T1G

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 diode fabricated in planar technology.

3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LBAS316T1G	Z9	3000/Tape&Reel
LBAS316T3G	Z9	10000/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
RMS reverse voltage	VR(RMS)	70	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	5	A
(t =1μs)		1	A
(t =1ms)		0.5	A
(t =1s)			
total power dissipation	Ptot	200	mW
storage temperature	Tstg	-55~+150	°C
junction temperature	Tj	150	°C

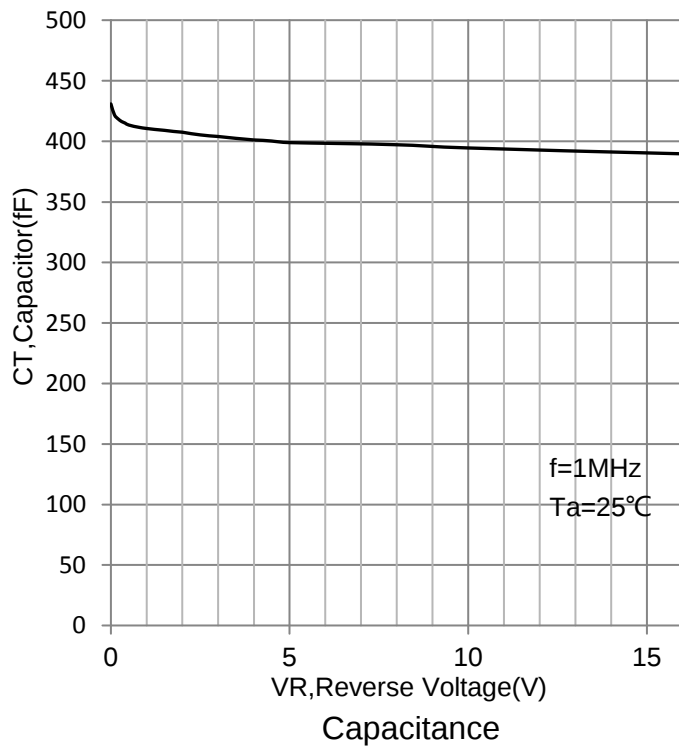
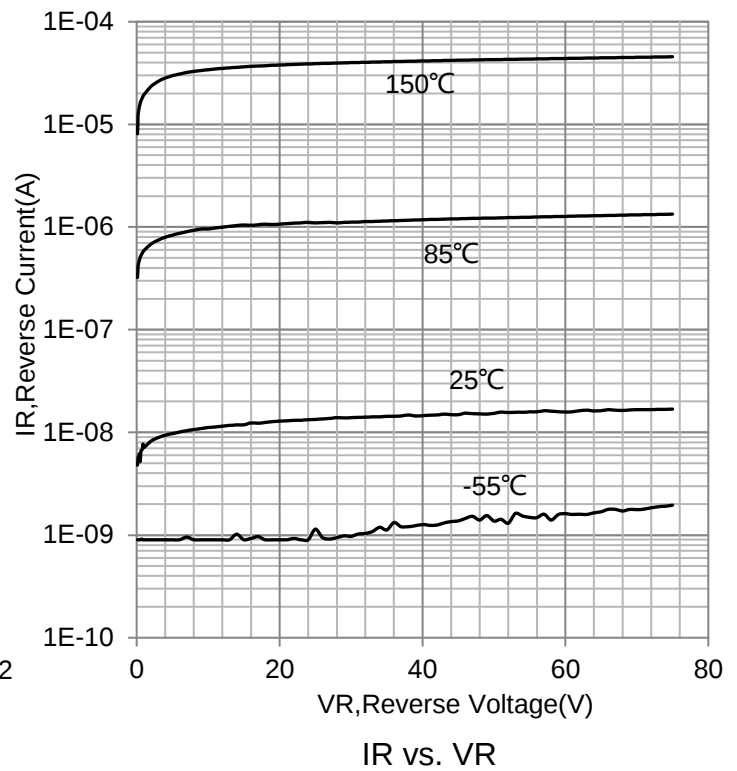
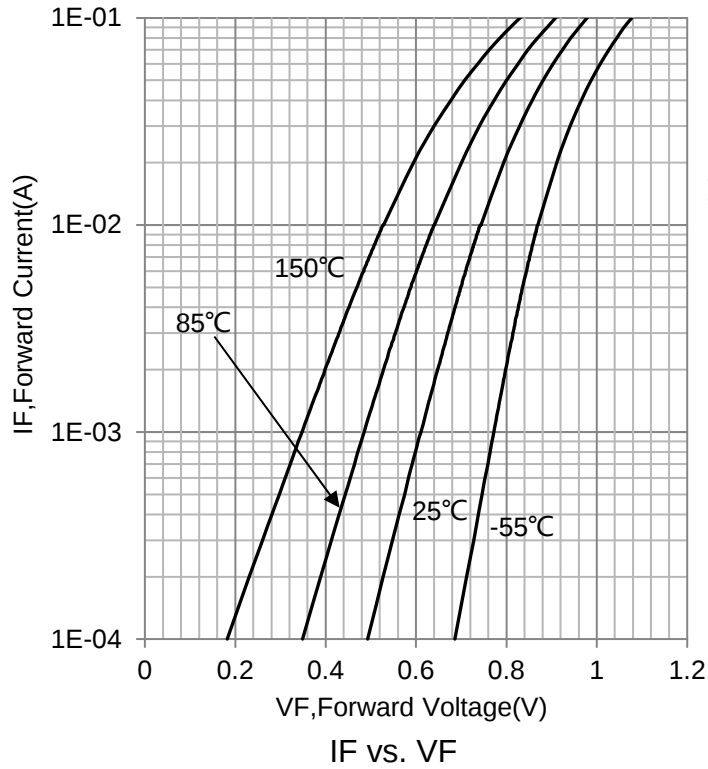
5. THERMAL CHARACTERISTICS

Parameter	Symbol	Max	Unit
Thermal resistance junction to ambient air	Rθja	625	°C/W

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

Parameter	Symbol	MIN	MAX	Unit
Forward Voltage (I _F = 1mA)	V _F	-	715	mV
(I _F = 10mA)		-	855	mV
(I _F = 50mA)		-	1	V
(I _F = 150mA)		-	1.25	V
Reverse Current (V _R = 25 V)	I _R	-	30	nA
(V _R = 75 V)		-	1	μA
(V _R = 80 V)		-	0.5	μA
(V _R = 25 V, T _j = 150°C)		-	30	μA
(V _R = 75 V, T _j = 150°C)		-	50	μA
Diode Capacitance (f=1MHz, V _R = 0)	C _d	-	2	pF
Reverse Recovery Time (When switched from I _F =10mA to I _R = 10mA; R _L =100Ω; measured at I _R = 1mA)	t _{rr}	-	4	nS
Forward Recovery Voltage (when switched from I _F =10mA; t _r =20 ns)	V _{fr}	-	1.75	V

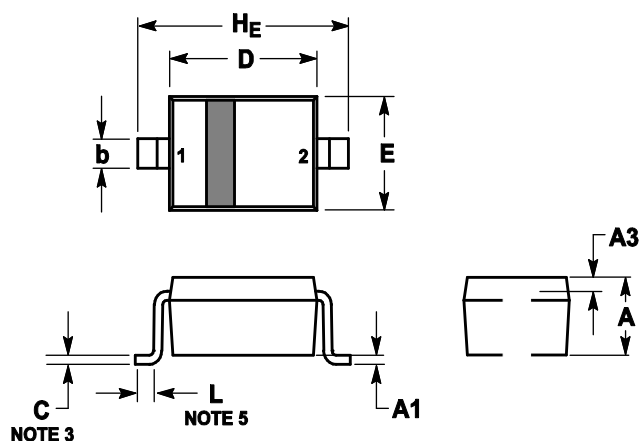
7.ELECTRICAL CHARACTERISTICS CURVES



8.OUTLINE AND DIMENSIONS

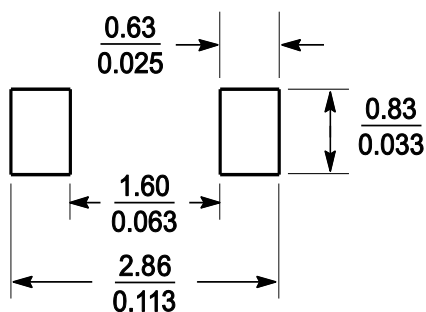
Notes:

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	0.8	0.9	1	0.031	0.035	0.04
A1	0	0.05	0.1	0	0.002	0.004
A3	0.15REF			0.006REF		
b	0.25	0.32	0.4	0.01	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.6	1.7	1.8	0.062	0.066	0.07
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
H_E	2.3	2.5	2.7	0.09	0.098	0.105

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.
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