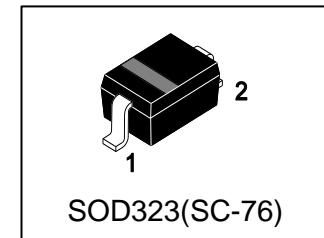


# LUDZS5.1BT1G

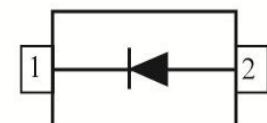
## S-LUDZS5.1BT1G

Zener Voltage Regulators  
200 mW SOD-323 Surface Mount



### 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.



### 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LUDZS5.1BT1G	A2	3000/Tape&Reel
LUDZS5.1BT3G	A2	10000/Tape&Reel

### 3. MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

Parameter	Symbol	Limits	Unit
Power dissipation	PD	200	mW
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	635	°C/W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C
Operating temperature	T <sub>opr</sub>	-55 to +150	°C

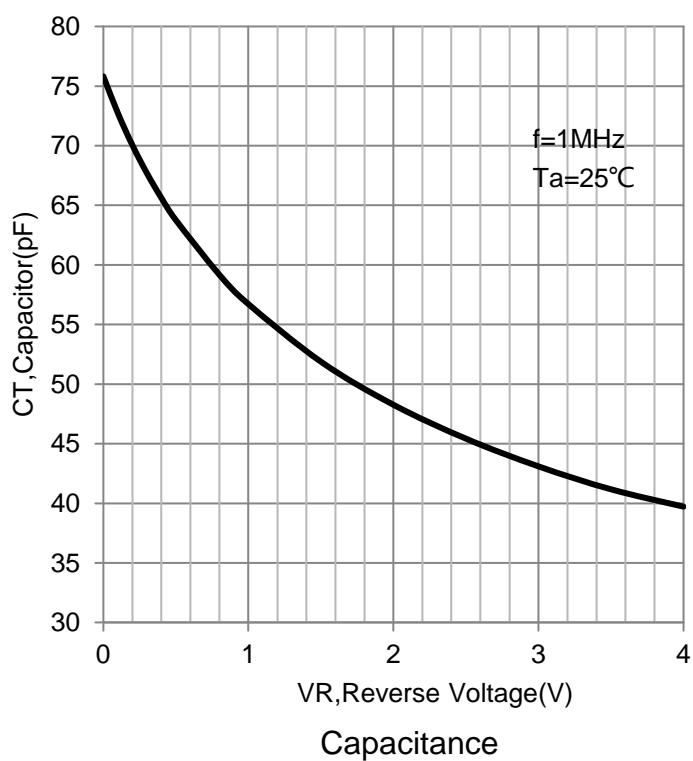
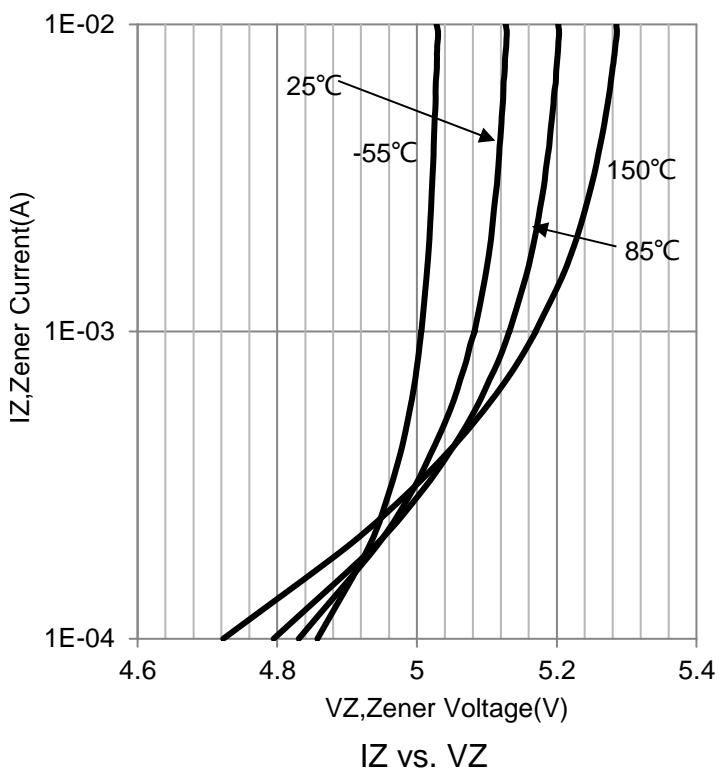
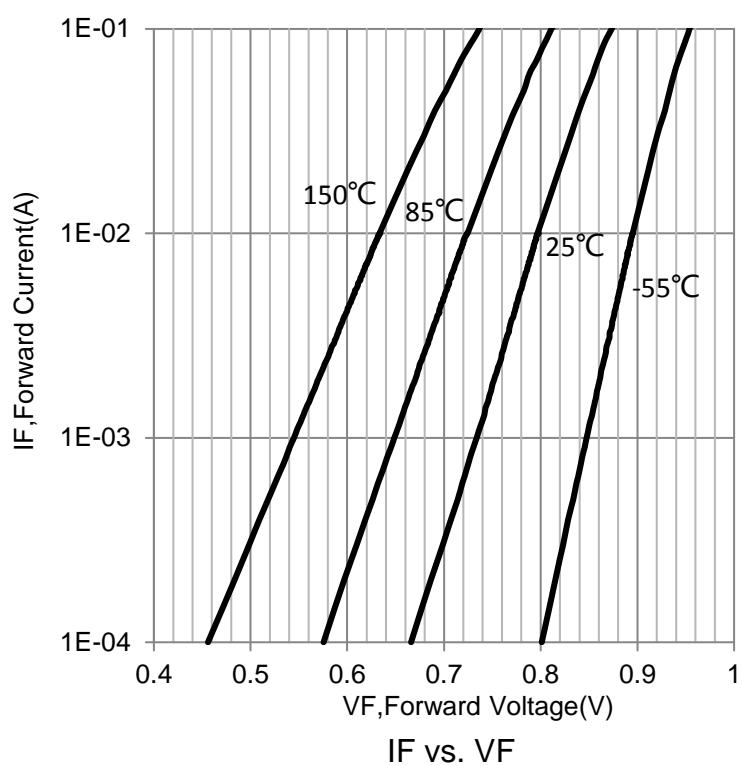
### 4. ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Zener voltage ( $I_{ZT}=5\text{mA}$ )	V <sub>Z</sub>	4.98	-	5.2	V
Operating resistance ( $I_{ZT}=5\text{mA}$ )	Z <sub>zT</sub>	-	-	80	Ω
Rising operating resistance ( $I_{ZK}=0.5\text{mA}$ )	Z <sub>zK</sub>	-	-	500	Ω
Reverse current ( $V_R=1.5V$ )	I <sub>R</sub>	-	-	2	μA

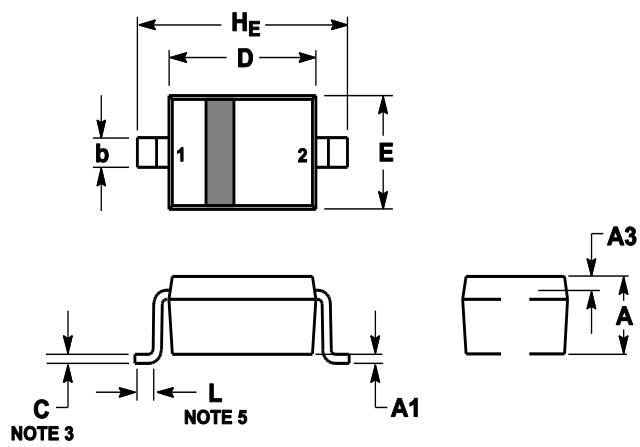
1. The Zener voltage (V<sub>Z</sub>) is measured 40ms after power is supplied.

2. The operating resistances (Z<sub>z</sub>, Z<sub>zK</sub>) are measured by superimposing a minute alternating current on the regulated current (I<sub>Z</sub>).

## 5.ELECTRICAL CHARACTERISTICS CURVES



## 6.OUTLINE AND DIMENSIONS

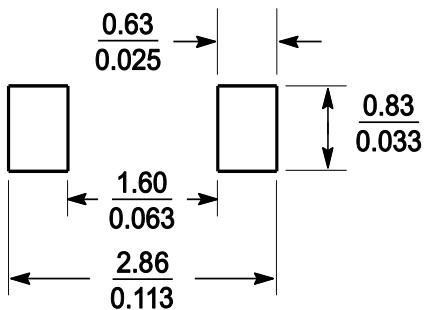


Notes:

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

## 7.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.