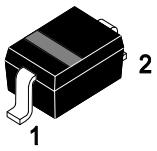
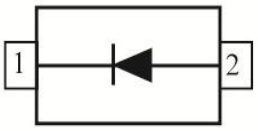
# LUDZS9.1BT1G
# S-LUDZS9.1BT1G

Zener Voltage Regulators
200 mW SOD-323 Surface Mount




SOD323(SC-76)




## 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.
- Silicon epitaxial planar

## 2. DEVICE MARKING AND ORDERING INFORMATION

| Device | Marking | Shipping |
|---|---|---|
| LUDZS9.1BT1G | L2 | 3000/Tape&Reel |
| LUDZS9.1BT3G | L2 | 10000/Tape&Reel |

## 3. MAXIMUM RATINGS (Ta = 25°C)

| Parameter | Symbol | Limits | Unit |
|---|---|---|---|
| Total Device Dissipation,<br>FR−5 Board (Note 1) @ TA = 25ºC<br>Derate above 25ºC | PD | <br>200<br>1.57 | <br>mW<br>mW/ºC |
| Thermal Resistance,<br>Junction–to–Ambient(Note 1) | RΘJA | 635 | ºC/W |
| Junction and Storage temperature | TJ,Tstg | −55～+150 | °C |

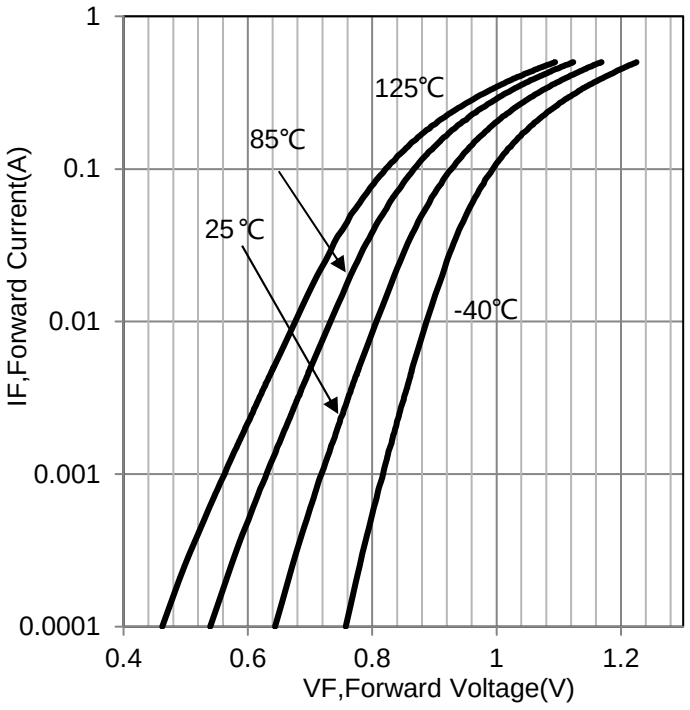
## 4. ELECTRICAL CHARACTERISTICS (Ta= 25ºC)

| Characteristic | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|
| Zener voltage<br>(IZT=5mA) | VZ | 8.85 | - | 9.23 | V |
| Operating resistance<br>(IZT=5mA) | ZZT | - | - | 30 | Ω |
| Rising operating resistance<br>(IZK=0.5mA) | ZZK | - | - | 60 | Ω |
| Reverse current<br>(VR=6V) | IR | - | - | 0.5 | μA |

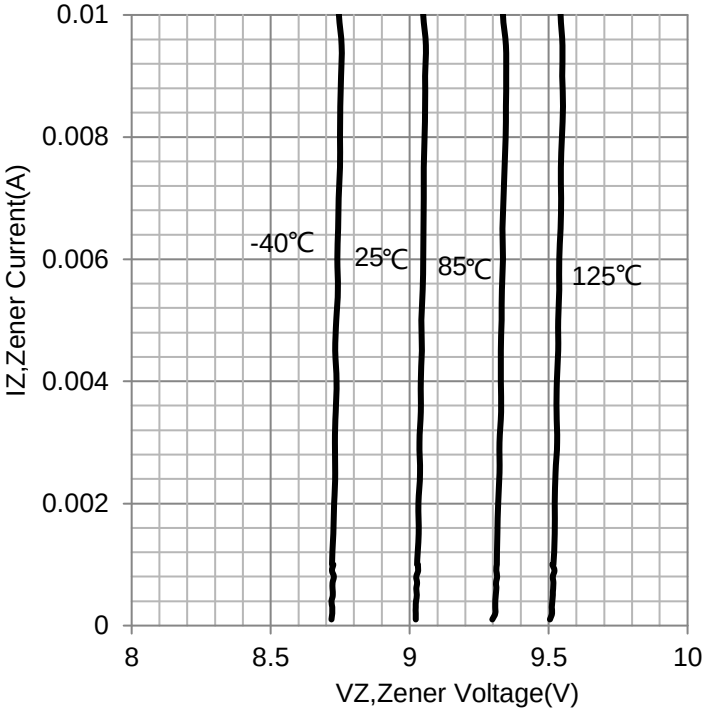
1. The Zener voltage (Vz ) is measured 40ms after power is supplied.

2. The operating resistances (Zz , Zzk ) are measured by superimposing a minute alternating current on the regulated current (Iz ).

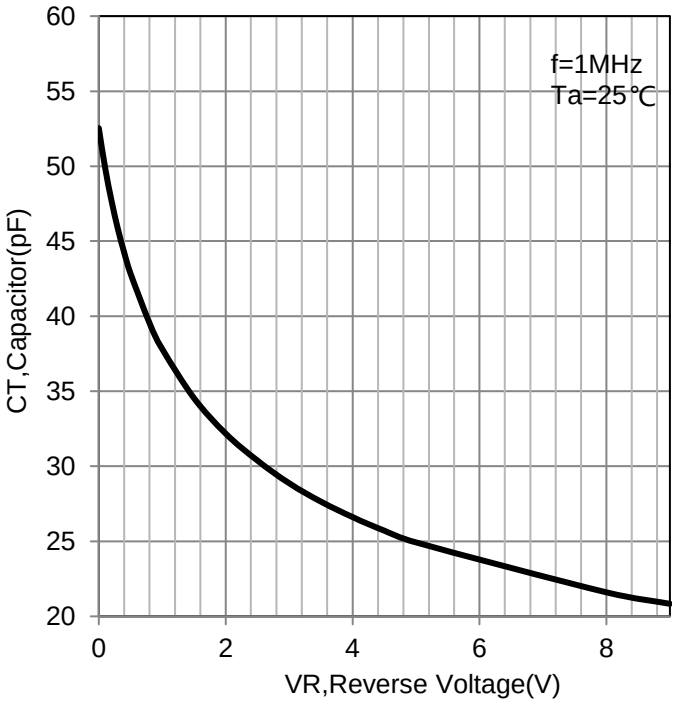
## 5.ELECTRICAL CHARACTERISTICS CURVES




IF vs. VF

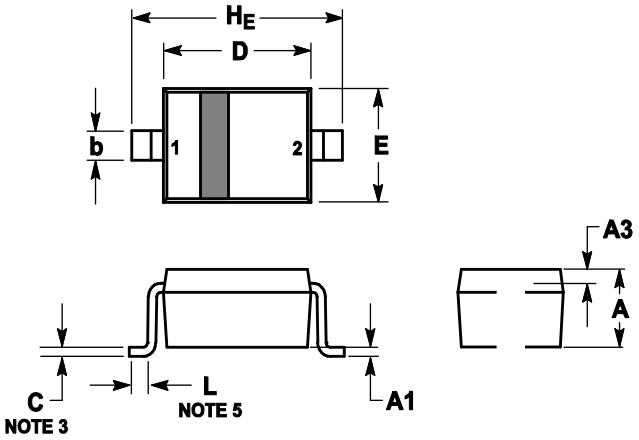



IZ vs. VZ




Capacitance

## 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.

| | MILLIMETERS | | | INCHES | | |
|---|---|---|---|---|---|---|
| DIM | 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