

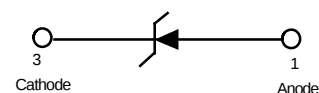
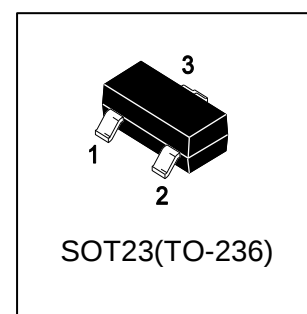
# LBZX84C6V8LT1G

## S-LBZX84C6V8LT1G

### Zener Voltage Regulator Diodes

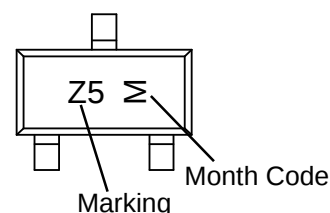
#### 1. FEATURES

- 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        |
|----------------|---------|-----------------|
| LBZX84C6V8LT1G | Z5      | 3000/Tape&Reel  |
| LBZX84C6V8LT3G | Z5      | 10000/Tape&Reel |



#### 3. THERMAL CHARACTERISTICS

| Parameter                                                                                | Symbol  | Limits     | Unit        |
|------------------------------------------------------------------------------------------|---------|------------|-------------|
| Total Device Dissipation,<br>FR-5 Board (Note 1) @ TA = 25°C<br>Derate above 25°C        | PD      | 225<br>1.8 | mW<br>mW/°C |
| Thermal Resistance Junction-to-Ambient                                                   | RθJA    | 556        | °C/W        |
| Total Device Dissipation,<br>Alumina Substrate (Note 2) @ TA = 25°C<br>Derate above 25°C | PD      | 300<br>2.4 | mW<br>mW/°C |
| Thermal Resistance Junction-to-Ambient                                                   | RθJA    | 417        | °C/W        |
| Junction and Storage temperature                                                         | TJ,Tstg | -55 ~ +150 | °C          |

1.FR-5 = 1.0 × 0.75 × 0.062 in.

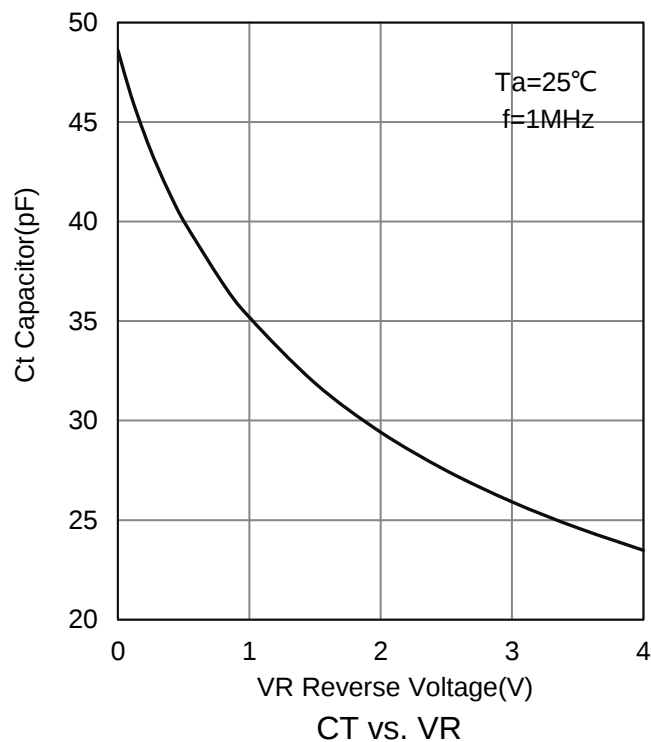
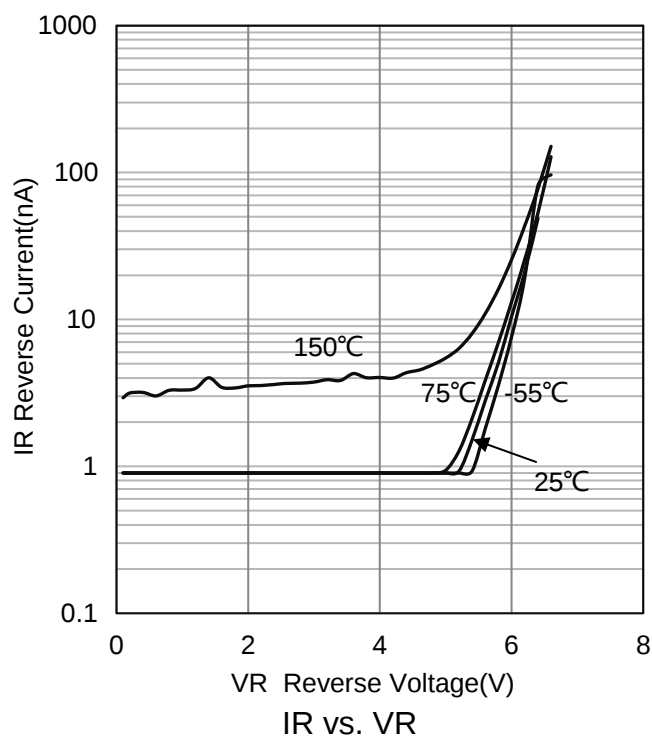
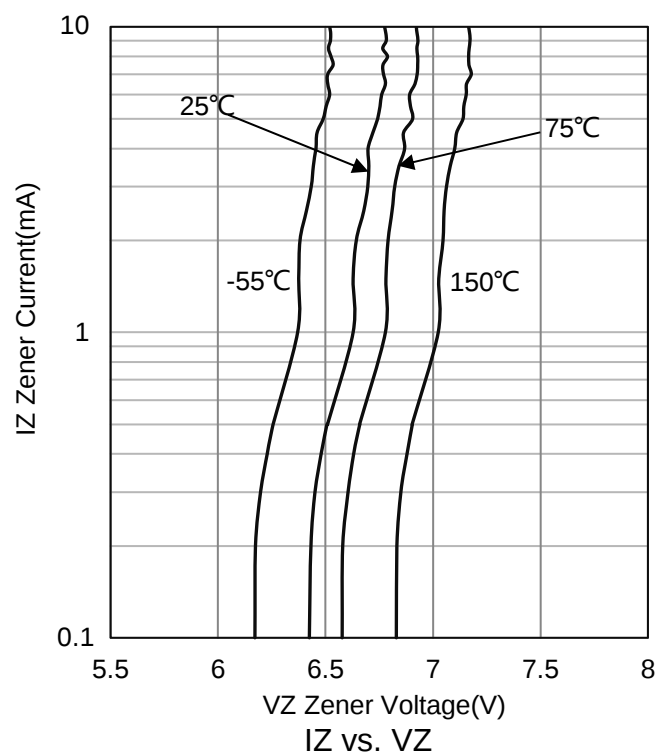
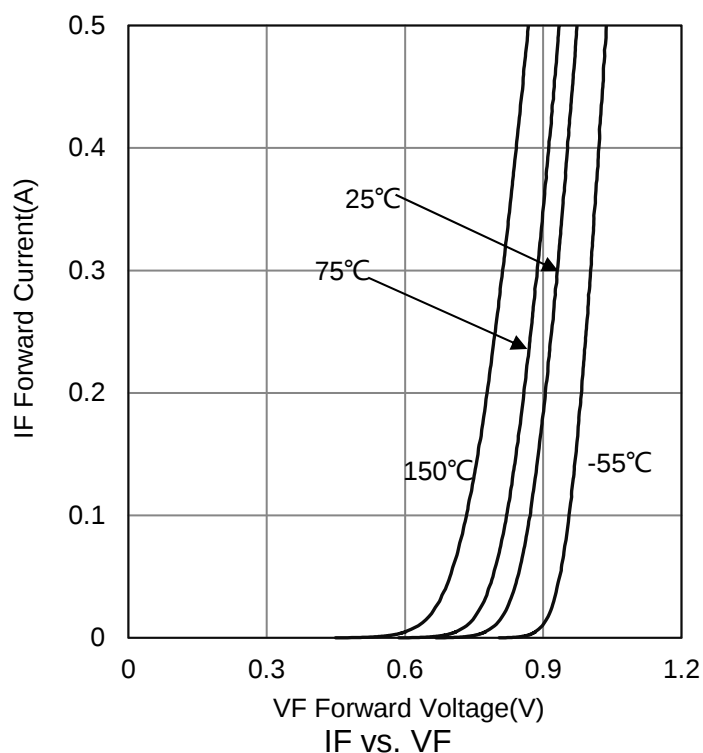
2.Alumina = 0.4 × 0.3 × 0.024 in. 99.5% alumina.

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

| Characteristic                                                            | Symbol | Min.              | Typ.          | Max.              | Unit |
|---------------------------------------------------------------------------|--------|-------------------|---------------|-------------------|------|
| Zener Voltage(Note 3)<br>(IZT1 = 5 mA)<br>(IZT2 = 1 mA)<br>(IZT3 = 20 mA) | VZ     | 6.4<br>6.3<br>6.4 | 6.8<br>-<br>- | 7.2<br>7.2<br>7.4 | V    |
| Zener Impedance<br>(IZT1 = 5 mA)<br>(IZT2 = 1 mA)<br>(IZT3 = 20 mA)       | ZZT    | -<br>-<br>-       | -<br>-<br>-   | 15<br>80<br>6     | Ω    |
| Reverse Leakage Current<br>(VR=4V)                                        | IR     | -                 | -             | 2                 | μA   |
| Capacitance<br>(VR=0,f=1MHz)                                              | C      | -                 | -             | 155               | pF   |
| Temperature Coefficient<br>(IZT1 = 5mA)                                   | θVZ    | 1.2               | -             | 4.5               | mV/k |

3.Zener voltage is measured with a pulse test current IZ at an ambient temperature of 25°C.

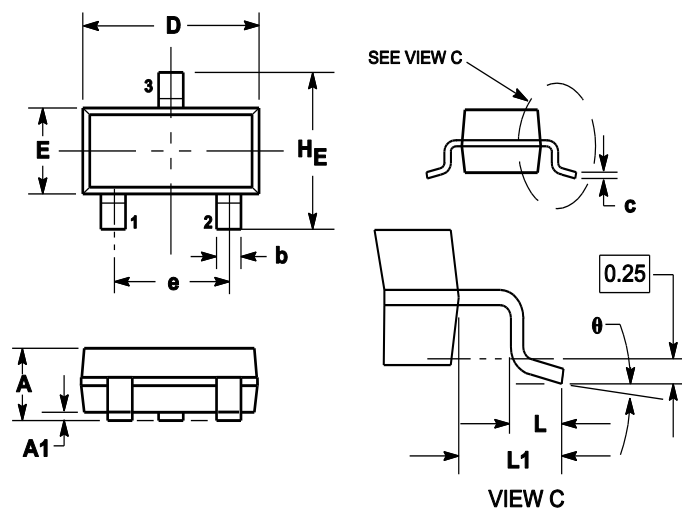
## 5.ELECTRICAL CHARACTERISTICS CURVES



## 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              | 0.89        | 1    | 1.11 | 0.035  | 0.04  | 0.044 |
| A1             | 0.01        | 0.06 | 0.1  | 0.001  | 0.002 | 0.004 |
| b              | 0.37        | 0.44 | 0.5  | 0.015  | 0.018 | 0.02  |
| c              | 0.09        | 0.13 | 0.18 | 0.003  | 0.005 | 0.007 |
| D              | 2.80        | 2.9  | 3.04 | 0.11   | 0.114 | 0.12  |
| E              | 1.20        | 1.3  | 1.4  | 0.047  | 0.051 | 0.055 |
| e              | 1.78        | 1.9  | 2.04 | 0.07   | 0.075 | 0.081 |
| L              | 0.10        | 0.2  | 0.3  | 0.004  | 0.008 | 0.012 |
| L1             | 0.35        | 0.54 | 0.69 | 0.014  | 0.021 | 0.029 |
| H <sub>E</sub> | 2.10        | 2.4  | 2.64 | 0.083  | 0.094 | 0.104 |
| θ              | 0°          | ---  | 10°  | 0°     | ---   | 10°   |

## 7.SOLDERING FOOTPRINT

