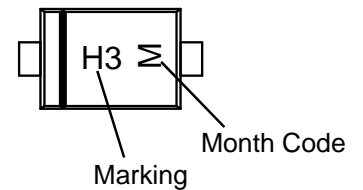
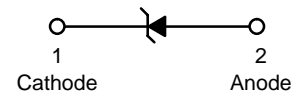
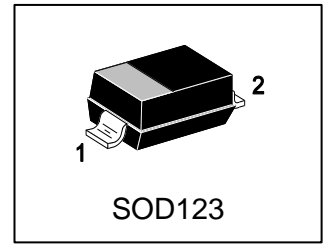


LMSZ5243BT1G

S-LMSZ5243BT1G

Zener Voltage Regulators
500 mW SOD-123 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.
- 500 mW Rating on FR-4 or FR-5 Board
- Package designed for optimal automated board assembly
- Small package size for high density applications
- General purpose, medium current
- ESD rating of Class 3 per Human Body Model

2. DEVICE MARKING AND ORDERING INFORMATION

| Device | Marking | Shipping |
|--------------|---------|-----------------|
| LMSZ5243BT1G | H3 | 3000/Tape&Reel |
| LMSZ5243BT3G | H3 | 10000/Tape&Reel |

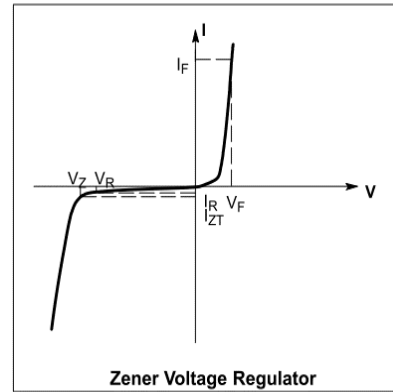
3. THERMAL CHARACTERISTICS

| Parameter | Symbol | Limits | Unit |
|---|-----------------------------------|------------|-------------|
| Total Device Dissipation, FR-5 Board (Note 1) @ TL = 75°C Derate above 75°C | PD | 500 6.7 | mW mW/°C |
| Thermal Resistance, Junction-to-Ambient(Note 2) | R θ JA | 340 | °C/W |
| Thermal Resistance, Junction-to-Lead(Note 2) | R θ JL | 150 | °C/W |
| Junction and Storage Temperature Range | T _J , T _{stg} | -55 ~ +150 | °C |

1. FR-5 = 3.5 X 1.5 inches, using the minimum recommended footprint.
2. Thermal Resistance measurement obtained via infrared Scan Method.

4. ELECTRICAL CHARACTERISTICS (Ta= 25°C) (VF ≤ 0.9 V @ IF = 10 mA)

| Symbol | Parameter |
|--------|-------------------------------|
| VZ | Reverse Zener Voltage @ IZT |
| IZT | Reverse Current |
| ZZT | Maximum Zener Impedance @ IZT |
| IZK | Reverse Current |
| ZZK | Maximum Zener Impedance @ IZK |
| IR | Reverse Leakage Current @ VR |
| VR | Reverse Voltage |
| IF | Forward Current |
| VF | Forward Voltage @ IF |

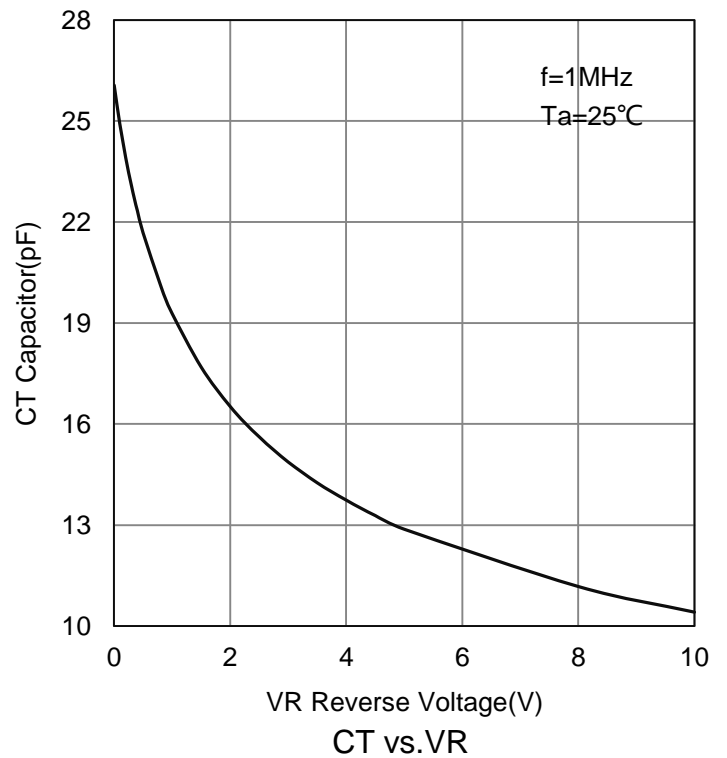
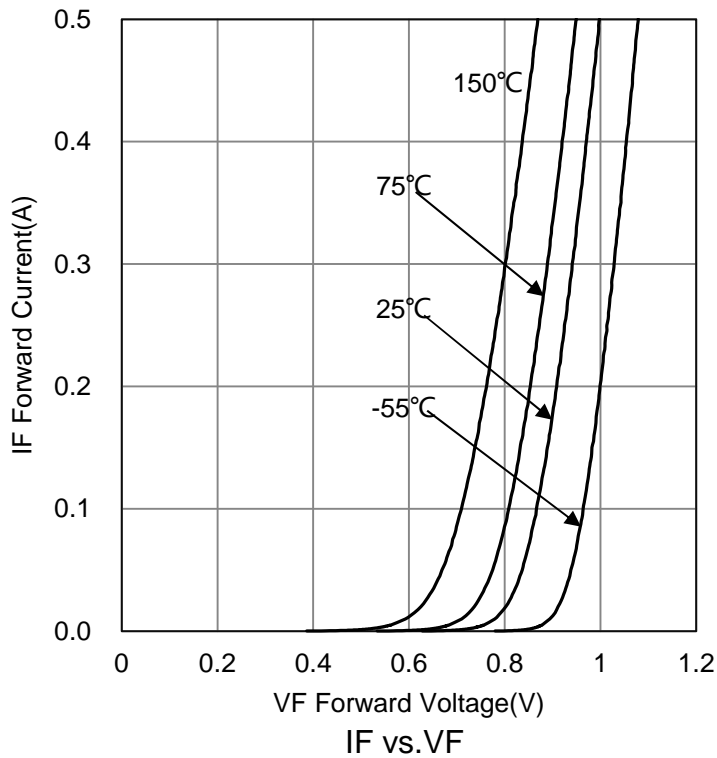
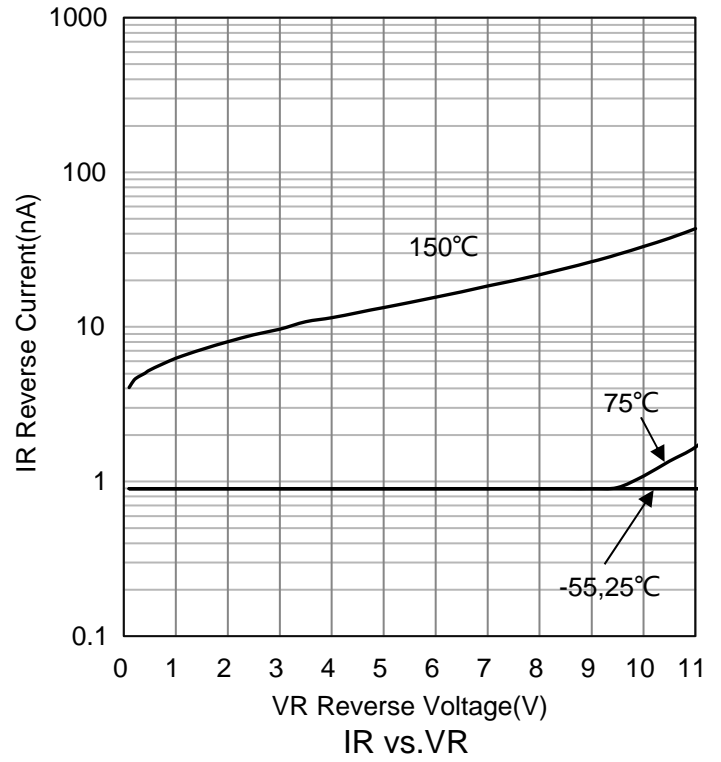
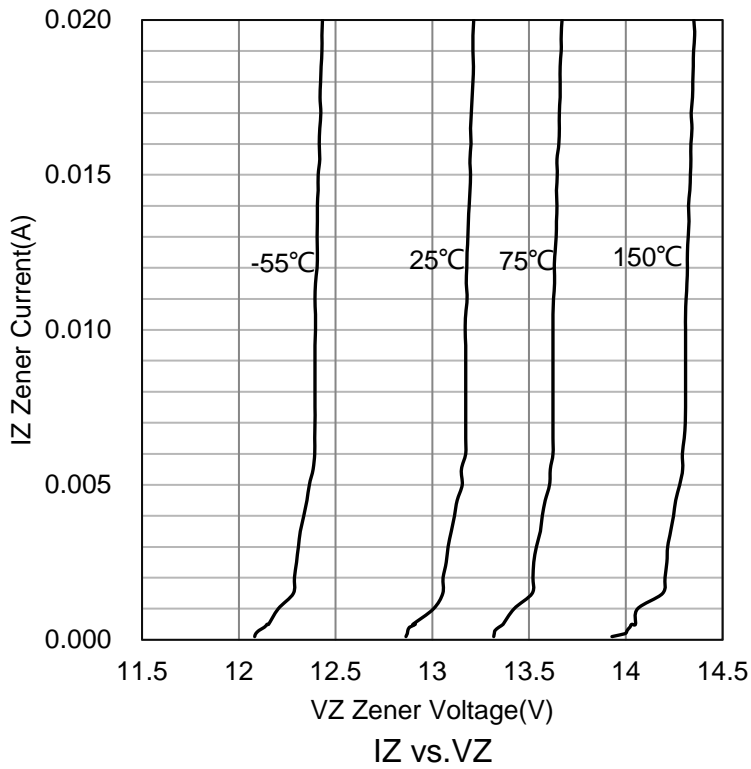


5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

| Characteristic | Symbol | Min. | Typ. | Max. | Unit |
|---|--------|-------|------|-------|------|
| Zener voltage(Note 3 and 4) (IZT=9.5mA) | VZ | 12.35 | 13 | 13.65 | V |
| Zener Impedance(Note 5) (IZT=9.5mA) | ZZT | - | - | 13 | Ω |
| Rising operating resistance(Note 5) (IZK=0.25mA) | ZZK | - | - | 600 | Ω |
| Reverse leakage current (VR=9.9V) | IR | - | - | 0.5 | μA |

3. The type numbers shown have a standard tolerance of ±5% on the nominal Zener voltage.
4. Nominal Zener voltage is measured with the device junction in thermal equilibrium at TL = 30°C±1°C.
5. ZZT and ZZK are measured by dividing the AC voltage drop across the device by the ac current applied.
The specified limits are for IZ(AC) = 0.1 IZ(dc) with the AC frequency = 1 KHz.

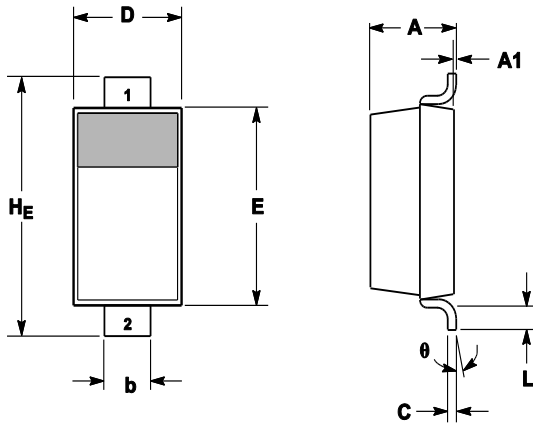
6.ELECTRICAL CHARACTERISTICS CURVES



7.OUTLINE AND DIMENSIONS

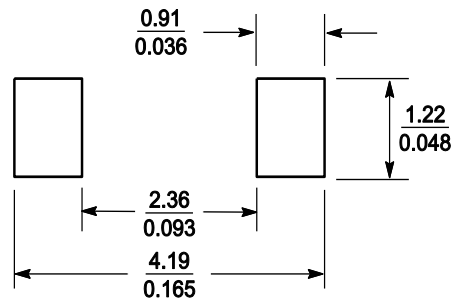
Notes:

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 | 0.94 | 1.17 | 1.35 | 0.037 | 0.046 | 0.053 |
| A1 | 0.00 | 0.05 | 0.10 | 0.000 | 0.002 | 0.004 |
| b | 0.51 | 0.61 | 0.71 | 0.020 | 0.024 | 0.028 |
| c | --- | --- | 0.15 | --- | --- | 0.006 |
| D | 1.40 | 1.60 | 1.80 | 0.055 | 0.063 | 0.071 |
| E | 2.54 | 2.69 | 2.84 | 0.100 | 0.106 | 0.112 |
| H _E | 3.56 | 3.68 | 3.86 | 0.140 | 0.145 | 0.152 |
| L | 0.25 | --- | --- | 0.010 | --- | --- |
| θ | 0° | --- | 10° | 0° | --- | 10° |

8.SOLDERING FOOTPRINT



SCALE 10:1 ($\frac{\text{mm}}{\text{inches}}$)