

描述 / Descriptions

SOD-123 塑封封装 稳压二极管。
Zener Diode in a SOD-123 Plastic Package.

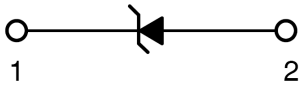
特征 / Features

500mW 功耗, 中等电流, 自动贴片组装。无卤产品。
500mW power dissipation, medium current, automated assembly processes. HF Product.

用途 / Applications

适用于 2.4V-39V 的宽范围稳压电路。
2.4V to 39V wide zener voltage range applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1:Cathode PIN2:Anode

放大及印章代码 / h_{FE} Classifications & Marking

见电性能参数。 See Electrical Characteristics.

极限参数 / Absolute Maximum Ratings(Ta=25°C)

| 参数 Parameter | 符号 Symbol | 数值 Rating | 单位 Unit |
|--|-----------------------------------|--------------|------------|
| Forward Voltage (Note 2) (I _F =10mA) | V _F | 0.9 | V |
| Power Dissipation(Note 1) | P _D | 500 | mW |
| Typical Thermal Resistance Junction to Ambient | R _{θJA} | 305 | °C/W |
| Junction and Storage Temperature Range | T _j , T _{stg} | -65~150 | °C |

电性能参数 / Electrical Characteristics(Ta=25°C)

| Type Number | Mark-ing Code | Zener Voltage Range (Note 2) | | | | Maximum Zener impedance (Note 3) | | | Maximum Reverse Current (Note 2) | | Typical Temperature Coefficient @I _{ZTC} mV/°C | | Test Current I _{ZTC} mA |
|-------------|---------------|---------------------------------|---------|---------|-----------------|----------------------------------|----------------------------------|-----------------|----------------------------------|-----------------|---|-----|----------------------------------|
| | | V _Z @I _{ZT} | | | I _{ZT} | Z _{ZT} @I _{ZT} | Z _{ZK} @I _{ZK} | I _{ZK} | I _R | @V _R | Min | Max | |
| | | Nom (V) | Min (V) | Max (V) | mA | Ω | | mA | uA | V | | | |
| BZT52C2V4 | HWX | 2.4 | 2.2 | 2.6 | 5 | 100 | 600 | 1 | 50 | 1 | -3.5 | 0 | 5 |
| BZT52C2V7 | HW1 | 2.7 | 2.5 | 2.9 | 5 | 100 | 600 | 1 | 20 | 1 | -3.5 | 0 | 5 |
| BZT52C3V0 | HW2 | 3.0 | 2.8 | 3.2 | 5 | 95 | 600 | 1 | 10 | 1 | -3.5 | 0 | 5 |
| BZT52C3V3 | HW3 | 3.3 | 3.1 | 3.5 | 5 | 95 | 600 | 1 | 5 | 1 | -3.5 | 0 | 5 |
| BZT52C3V6 | HW4 | 3.6 | 3.4 | 3.8 | 5 | 90 | 600 | 1 | 5 | 1 | -3.5 | 0 | 5 |
| BZT52C3V9 | HW5 | 3.9 | 3.7 | 4.1 | 5 | 90 | 600 | 1 | 3 | 1 | -3.5 | 0 | 5 |
| BZT52C4V3 | HW6 | 4.3 | 4 | 4.6 | 5 | 90 | 600 | 1 | 3 | 1 | -3.5 | 0 | 5 |
| BZT52C4V7 | HW7 | 4.7 | 4.4 | 5 | 5 | 80 | 500 | 1 | 3 | 2 | -3.5 | 0.2 | 5 |
| BZT52C5V1 | HW8 | 5.1 | 4.8 | 5.4 | 5 | 60 | 480 | 1 | 2 | 2 | -2.7 | 1.2 | 5 |
| BZT52C5V6 | HW9 | 5.6 | 5.2 | 6 | 5 | 40 | 400 | 1 | 1 | 2 | -2 | 2.5 | 5 |
| BZT52C6V2 | HWA | 6.2 | 5.8 | 6.6 | 5 | 10 | 150 | 1 | 3 | 4 | 0.4 | 3.7 | 5 |
| BZT52C6V8 | HWB | 6.8 | 6.4 | 7.2 | 5 | 15 | 80 | 1 | 2 | 4 | 1.2 | 4.5 | 5 |
| BZT52C7V5 | HWC | 7.5 | 7 | 7.9 | 5 | 15 | 80 | 1 | 1 | 5 | 2.5 | 5.3 | 5 |
| BZT52C8V2 | HWD | 8.2 | 7.7 | 8.7 | 5 | 15 | 80 | 1 | 0.7 | 5 | 3.2 | 6.2 | 5 |
| BZT52C9V1 | HWE | 9.1 | 8.5 | 9.6 | 5 | 15 | 100 | 1 | 0.5 | 6 | 3.8 | 7 | 5 |
| BZT52C10 | HWF | 10 | 9.4 | 10.6 | 5 | 20 | 150 | 1 | 0.2 | 7 | 4.5 | 8 | 5 |

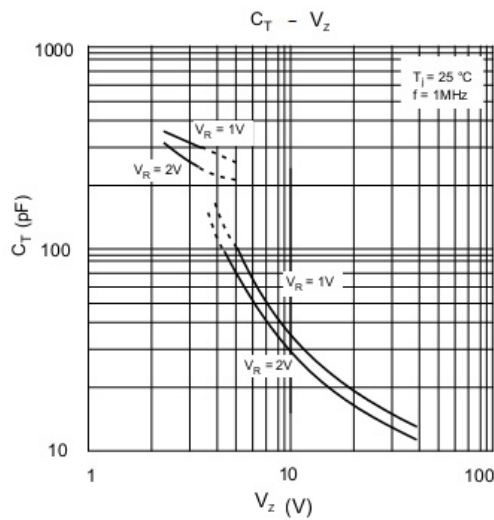
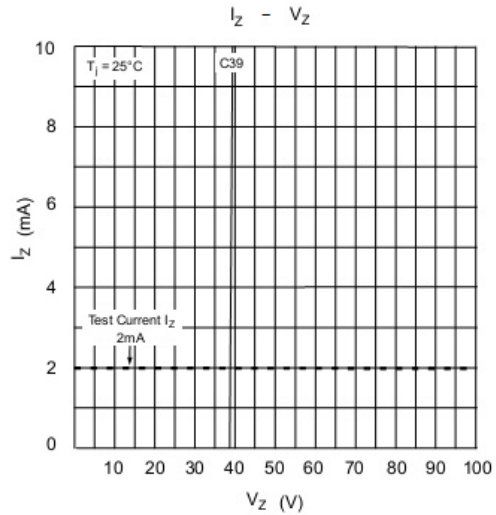
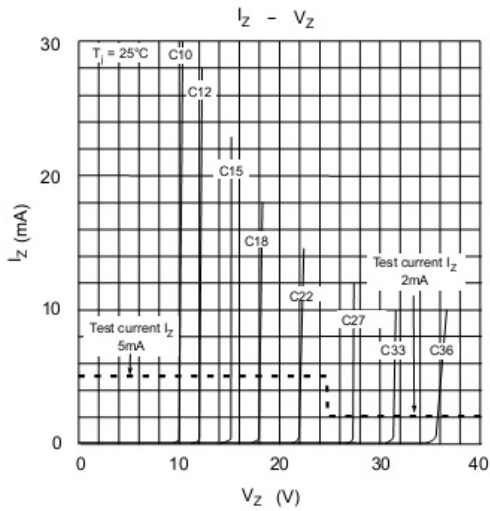
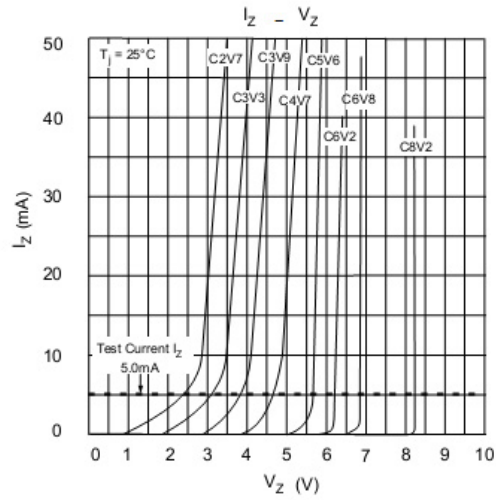
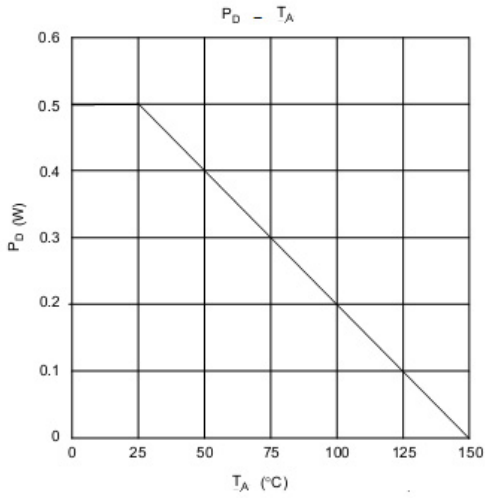
电性能参数 / Electrical Characteristics(Ta=25°C)

| Type Number | Marking Code | Zener Voltage Range (Note 2) | | | | Maximum Zener Impedance (Note 3) | | | Maximum Reverse Current (Note 2) | | Typical Temperature Coefficient @I _{ZTC} mV/°C | | Test Current I _{ZTC} mA |
|-------------|--------------|---------------------------------|---------|---------|-----------------|----------------------------------|----------------------------------|-----------------|----------------------------------|-----------------|---|------|----------------------------------|
| | | V _Z @I _{ZT} | | | I _{ZT} | Z _{ZT} @I _{ZT} | Z _{ZK} @I _{ZK} | I _{ZK} | I _R | @V _R | Min | Max | |
| | | Nom (V) | Min (V) | Max (V) | mA | Ω | | mA | uA | V | | | |
| BZT52C11 | HWG | 11 | 10.4 | 11.6 | 5 | 20 | 150 | 1 | 0.1 | 8 | 5.4 | 9 | 5 |
| BZT52C12 | HWH | 12 | 11.4 | 12.7 | 5 | 25 | 150 | 1 | 0.1 | 8 | 6 | 10 | 5 |
| BZT52C13 | HWI | 13 | 12.4 | 14.1 | 5 | 30 | 170 | 1 | 0.1 | 8 | 7 | 11 | 5 |
| BZT52C15 | HWJ | 15 | 13.8 | 15.6 | 5 | 30 | 200 | 1 | 0.1 | 10.5 | 9.2 | 13 | 5 |
| BZT52C16 | HWK | 16 | 15.3 | 17.1 | 5 | 40 | 200 | 1 | 0.1 | 11.2 | 10.4 | 14 | 5 |
| BZT52C18 | HWL | 18 | 16.8 | 19.1 | 5 | 45 | 225 | 1 | 0.1 | 12.6 | 12.4 | 16 | 5 |
| BZT52C20 | HWM | 20 | 18.8 | 21.2 | 5 | 55 | 225 | 1 | 0.1 | 14 | 14.4 | 18 | 5 |
| BZT52C22 | HWN | 22 | 20.8 | 23.3 | 5 | 55 | 250 | 1 | 0.1 | 15.4 | 16.4 | 20 | 5 |
| BZT52C24 | HWO | 24 | 22.8 | 25.6 | 5 | 70 | 250 | 1 | 0.1 | 16.8 | 18.4 | 22 | 5 |
| BZT52C27 | HWP | 27 | 25.1 | 28.9 | 2 | 80 | 300 | 0.5 | 0.1 | 18.9 | 21.4 | 25.3 | 2 |
| BZT52C30 | HWQ | 30 | 28 | 32 | 2 | 80 | 300 | 0.5 | 0.1 | 21 | 24.4 | 29.4 | 2 |
| BZT52C33 | HWR | 33 | 31 | 35 | 2 | 80 | 325 | 0.5 | 0.1 | 23.1 | 27.4 | 33.4 | 2 |
| BZT52C36 | HWS | 36 | 34 | 38 | 2 | 90 | 350 | 0.5 | 0.1 | 25.2 | 30.4 | 37.4 | 2 |
| BZT52C39 | HWT | 39 | 37 | 41 | 2 | 130 | 350 | 0.5 | 0.1 | 27.3 | 33.4 | 41.2 | 2 |

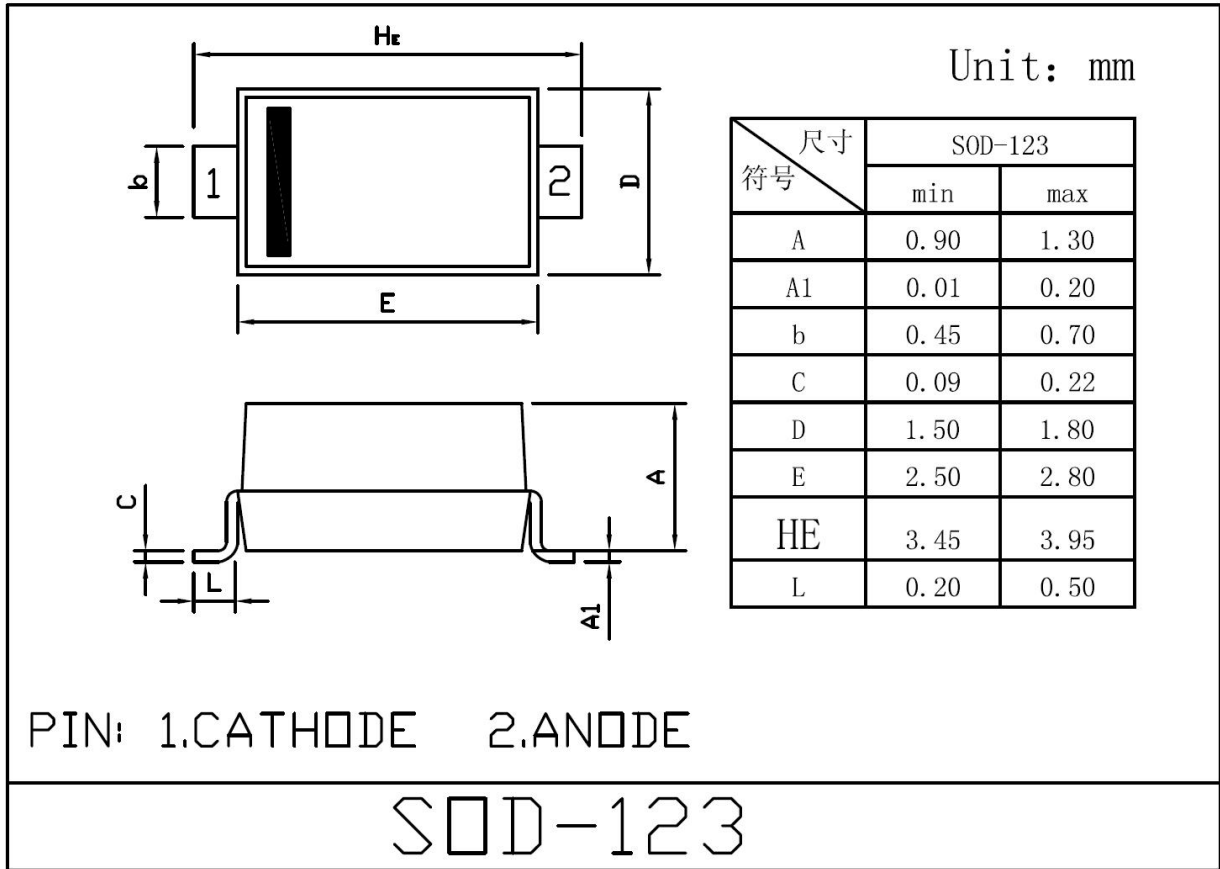
Notes:

1. Device mounted on ceramic PCB; 7.6mm x 9.4mm x 0.87mm with pad areas 25mm².
2. Short duration test pulse used to minimize self-heating effect.
3. f = 1kHz.

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

H： 为公司代码

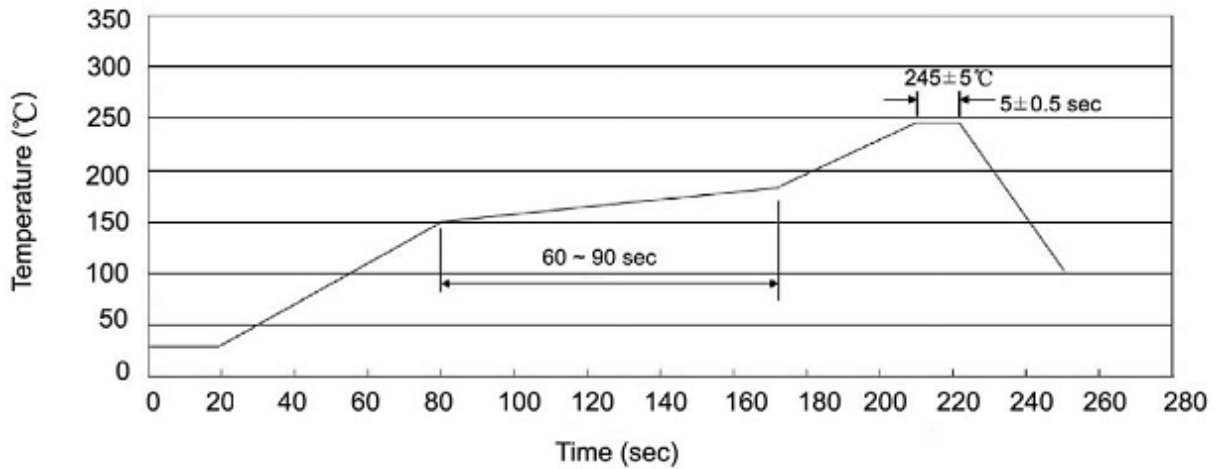
WX： 为型号代码

Note:

H: Company Code.

WX: Product Type.

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150 ~ 180°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
| | Units/Reel 只/卷盘 | Reels/Inner Box 卷盘/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 只/箱 | Reel | Inner Box 盒 | Outer Box 箱 |
| SOD-123 | 3,000 | 10 | 30,000 | 6 | 180,000 | 7" ×8 | 180×120×180 | 390×385×205 |

使用说明 / Notices