# 苏州固锝电子股份有限公司

## SUZHOU GOODARK ELECTRONICS CO., LTD

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**产品规格书**

**Specification**

GOODARK型号

MINI MELF（SOD-80） BZV55C系列(HF Part)

构造 ：稳压二极管

Construction : Small-Signal Diode

用途 ：稳压

Application : Zener Rectifier

制造工厂（Manufacturer）:

苏州固锝电子股份有限公司

Suzhou Good-ark Electronics Co., Ltd

作成部门：产品开发事业部

Prepared: R & D Department

批准人 ：蒋祖良

Confirmed：Z.L.JIANG

接受印栏

请记入贵公司的名称、接受日期、责任者人名。

Please mark the name of customer, approval date ,responsible person name

记载内容

CONTENTS


1. 外形规格 CASE DIMENTIO N
2. 印字规格 MARKING
3. 编带规格 TAPING SPECIFICATION
4. 最大定格 ABSOLUTE MAXIMUM RATING
5. 电气特性 ELECTRICAL CHARACTERISTICS
6. 特性曲线 RATINGS AND CHARACTERISTIC CURVES（Ta=25℃）
7. 包装规格 PACKAGING SPECIFICATION

# 苏州固锝电子股份有限公司

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**变 更 履 历(Change History Records)**

| 发行日<br>ISSUE DATE | 变更种类<br>Category | 变更号<br>Change No. | 变更内容<br>Change Content | 实施日期<br>Implement Date |
|---|---|---|---|---|
| 2018.5.10 | 客户需求 | / | 蓝色油墨变更为黑色无卤油墨 | 2018.5.10 |
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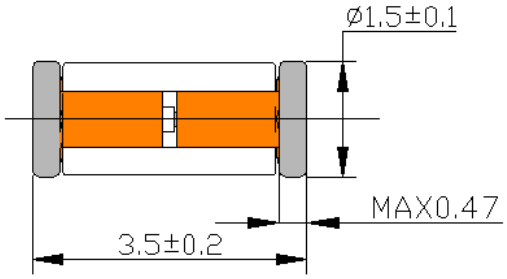
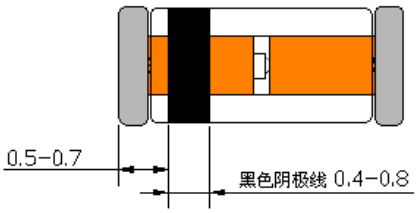
# 苏州固锝电子股份有限公司

## SUZHOU GOODARK ELECTRONICS CO., LTD

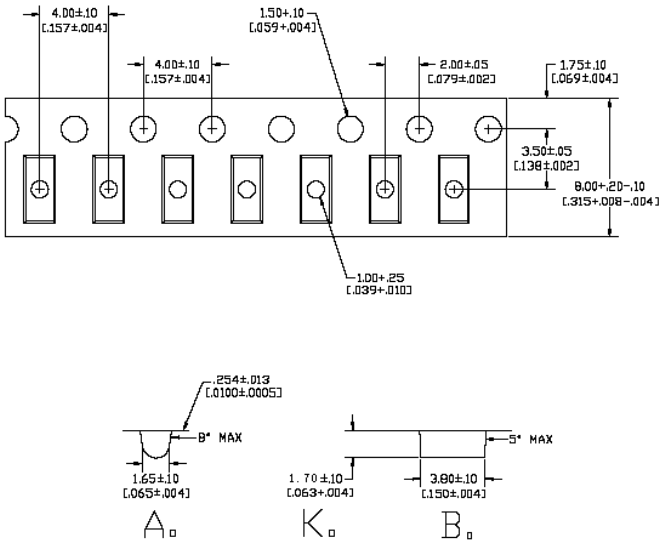
**1.外形规格** CASE DIMENSION (SOD-80) Unit mm

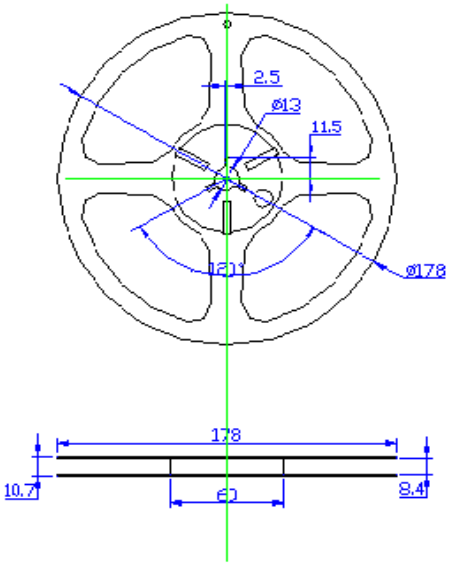



**2.印字规格** MARKING




**3.编带规格** TAPING SPECIFICATION，厚度：0.25±0.1mm，单位：mm。



**4.最大定格** ABSOLUTE MAXIMUM RATING（Ta=25℃）

| 项目<br>ITEM | 符号<br>SYMBOL | 定格<br>LIMIT | 单位<br>UNIT |
|---|---|---|---|
| 许容损失<br>Power dissipation Tflange=50℃ | Ptot | 500 | mW |
| 许容损失<br>Power dissipation TA=50℃ (1) | Ptot | 400 | mW |
| 热阻<br>Themal resistance junction to ambient air(1) | R θ JA | 380 | ℃/W |
| 热阻<br>Themal resistance junction to lead(1) | R θ JL | 300 | ℃/W |
| 接合温度<br>Maximum Junction Temperature | Tj | 175 | ℃ |
| 保存温度范围<br>Storage Temperature | Tstg | -55 to +175 | ℃ |
| 许容损失<br>Peak reverse power dissipation (non-repetitive) Tp=100us (2) | Pzsm | 30 | W |

Notes: 1. Mounted on ceramic substrate 10mm×10mm×0.6mm

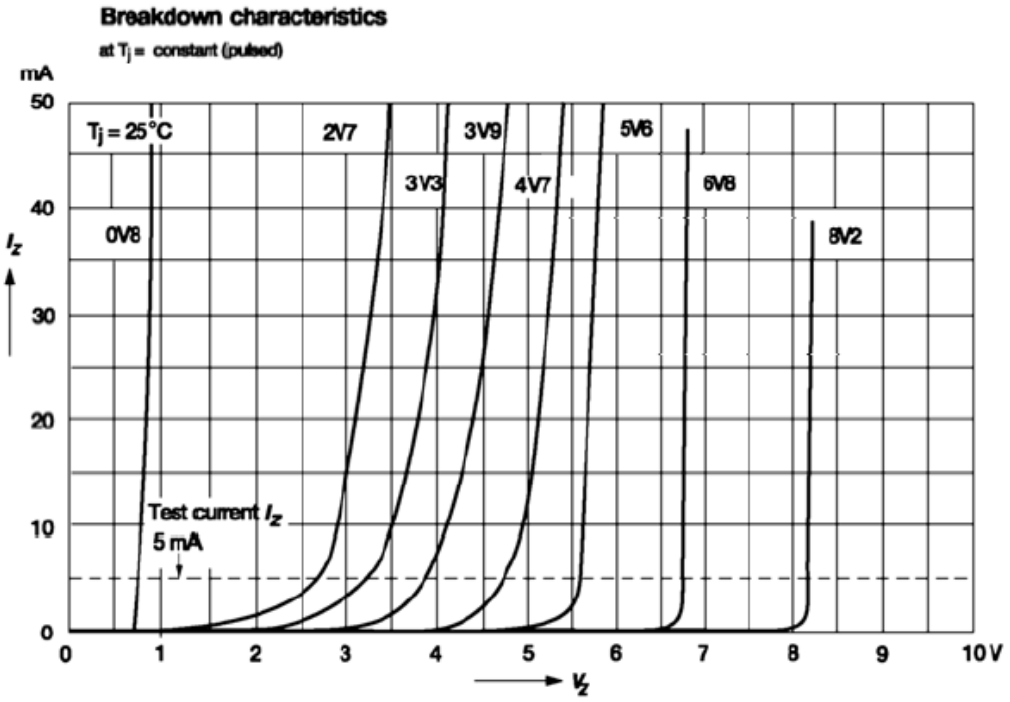
2. Tj=150℃

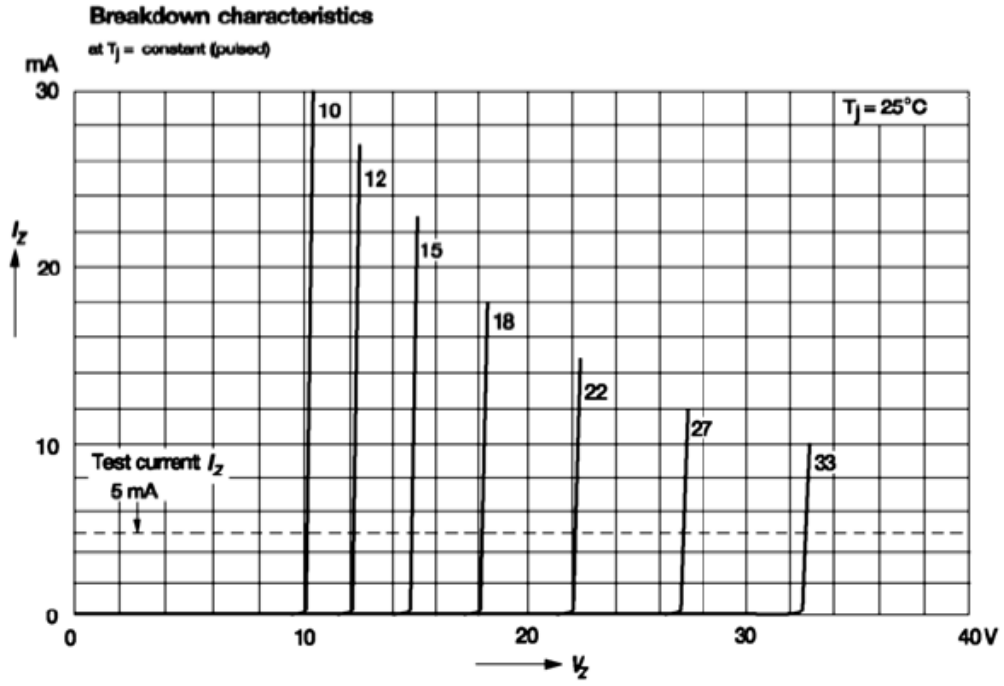
**5.电气特性** ELECTRICAL CHARACTERISTICS （Ta=25℃）

| 序号 | 参数<br>规格 | @IZ<br>（mA） | Vz (v)<br>Min | <br>Max | @IzT<br>(mA) | ZzT<br>ohms<br>(Max) | @IzK<br>(mA) | ZzK<br>ohms<br>(Max) | @VR<br>(V) | IR(uA)<br>Max | @IF<br>（mA） | VF(V)<br>Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BZV55C 2V0 | 5 | 1.9 | 2.1 | 5 | 100 | 1 | 600 | 1 | 50 | 10 | 0.9 |
| 2 | BZV55C 2V4 | 5 | 2.2 | 2.6 | 5 | 100 | 1 | 600 | 1 | 50 | 10 | 0.9 |
| 3 | BZV55C 2V7 | 5 | 2.5 | 2.9 | 5 | 100 | 1 | 600 | 1 | 20 | 10 | 0.9 |
| 4 | BZV55C 3V0 | 5 | 2.8 | 3.2 | 5 | 95 | 1 | 600 | 1 | 10 | 10 | 0.9 |
| 5 | BZV55C 3V3 | 5 | 3.1 | 3.5 | 5 | 95 | 1 | 600 | 1 | 5 | 10 | 0.9 |
| 6 | BZV55C 3V6 | 5 | 3.4 | 3.9 | 5 | 90 | 1 | 600 | 1 | 5 | 10 | 0.9 |
| 7 | BZV55C 3V9 | 5 | 3.7 | 4.1 | 5 | 90 | 1 | 600 | 1 | 3 | 10 | 0.9 |
| 8 | BZV55C 4V3 | 5 | 4 | 4.6 | 5 | 90 | 1 | 600 | 1 | 3 | 10 | 0.9 |
| 9 | BZV55C 4V7 | 5 | 4.4 | 5 | 5 | 80 | 1 | 500 | 2 | 3 | 10 | 0.9 |
| 10 | BZV55C 5V1 | 5 | 4.8 | 5.4 | 5 | 60 | 1 | 480 | 2 | 2 | 10 | 0.9 |
| 11 | BZV55C 5V6 | 5 | 5.2 | 6 | 5 | 40 | 1 | 400 | 2 | 1 | 10 | 0.9 |
| 12 | BZV55C 6V2 | 5 | 5.8 | 6.6 | 5 | 10 | 1 | 150 | 4 | 3 | 10 | 0.9 |
| 13 | BZV55C 6V8 | 5 | 6.4 | 7.2 | 5 | 15 | 1 | 80 | 4 | 2 | 10 | 0.9 |
| 14 | BZV55C 7V5 | 5 | 7 | 7.9 | 5 | 15 | 1 | 80 | 5 | 1 | 10 | 0.9 |
| 15 | BZV55C 8V2 | 5 | 7.7 | 8.7 | 5 | 15 | 1 | 80 | 5 | 0.7 | 10 | 0.9 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | BZV55C 9V1 | 5 | 8.5 | 9.6 | 5 | 15 | 1 | 100 | 6 | 0.5 | 10 | 0.9 |
| 17 | BZV55C 10 | 5 | 9.4 | 10.6 | 5 | 20 | 1 | 150 | 7 | 0.2 | 10 | 0.9 |
| 18 | BZV55C 11 | 5 | 10.4 | 11.6 | 5 | 20 | 1 | 150 | 8 | 0.1 | 10 | 0.9 |
| 19 | BZV55C 12 | 5 | 11.4 | 12.7 | 5 | 25 | 1 | 150 | 8 | 0.1 | 10 | 0.9 |
| 20 | BZV55C 13 | 5 | 12.4 | 14.1 | 5 | 30 | 1 | 170 | 8 | 0.1 | 10 | 0.9 |
| 21 | BZV55C 14 | 5 | 13.3 | 14.7 | 5 | 30 | 1 | 200 | 10 | 0.05 | 10 | 0.9 |
| 22 | BZV55C 15 | 5 | 13.8 | 15.6 | 5 | 30 | 1 | 200 | 10 | 0.05 | 10 | 0.9 |
| 23 | BZV55C 16 | 5 | 15.3 | 17.1 | 5 | 40 | 1 | 200 | 11 | 0.05 | 10 | 0.9 |
| 24 | BZV55C 18 | 5 | 16.8 | 19.1 | 5 | 45 | 1 | 225 | 13 | 0.05 | 10 | 0.9 |
| 25 | BZV55C 20 | 5 | 18.8 | 21.2 | 5 | 55 | 1 | 225 | 14 | 0.05 | 10 | 0.9 |
| 26 | BZV55C 22 | 5 | 20.8 | 23.3 | 5 | 55 | 1 | 250 | 15 | 0.05 | 10 | 0.9 |
| 27 | BZV55C 24 | 5 | 22.8 | 25.6 | 5 | 70 | 1 | 250 | 17 | 0.05 | 10 | 0.9 |
| 28 | BZV55C 27 | 2 | 25.1 | 28.9 | 2 | 80 | 0.5 | 300 | 19 | 0.05 | 10 | 0.9 |
| 29 | BZV55C 30 | 2 | 28 | 32 | 2 | 80 | 0.5 | 300 | 21 | 0.05 | 10 | 0.9 |
| 30 | BZV55C 33 | 2 | 31 | 35 | 2 | 80 | 0.5 | 325 | 23 | 0.05 | 10 | 0.9 |
| 31 | BZV55C 36 | 2 | 34 | 38 | 2 | 80 | 0.5 | 350 | 25 | 0.05 | 10 | 0.9 |
| 32 | BZV55C 39 | 2 | 37 | 41 | 2 | 90 | 0.5 | 350 | 27 | 0.05 | 10 | 0.9 |
| 33 | BZV55C 43 | 2 | 40 | 46 | 2 | 130 | 0.5 | 375 | 30 | 0.05 | 10 | 0.9 |
| 34 | BZV55C 47 | 2 | 44 | 50 | 2 | 170 | 0.5 | 375 | 33 | 0.05 | 10 | 0.9 |
| 35 | BZV55C 51 | 2 | 48 | 54 | 2 | 180 | 0.5 | 400 | 36 | 0.05 | 10 | 0.9 |
| 36 | BZV55C 56 | 2 | 52 | 60 | 2 | 200 | 0.5 | 425 | 39 | 0.05 | 10 | 0.9 |
| 37 | BZV55C 62 | 2 | 58 | 66 | 2 | 215 | 0.5 | 450 | 43 | 0.05 | 10 | 0.9 |
| 38 | BZV55C 68 | 2 | 64 | 72 | 2 | 240 | 0.5 | 475 | 48 | 0.05 | 10 | 0.9 |
| 39 | BZV55C 75 | 2 | 70 | 79 | 2 | 255 | 0.5 | 500 | 53 | 0.05 | 10 | 0.9 |

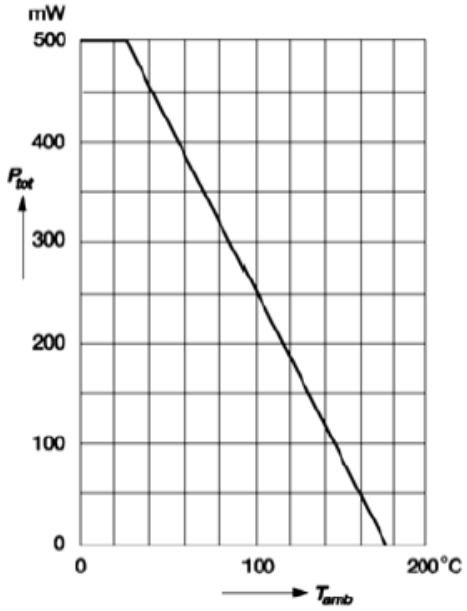
**6.** 特性曲线 RATINGS AND CHARACTERISTIC CURVES（Ta=25℃）



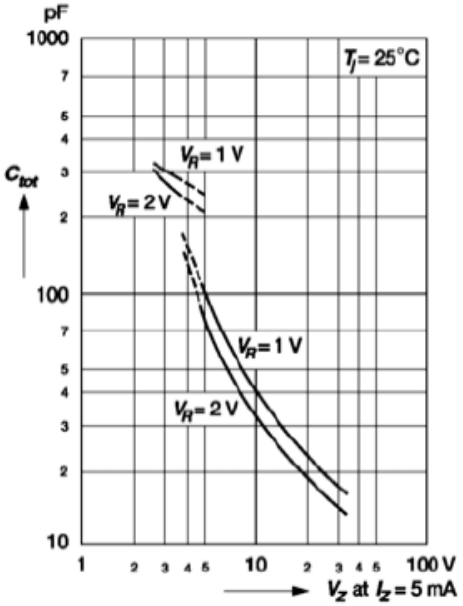



**Admissible power dissipation versus ambient temperature**

Valid provided that leads are kept ambient temperature at a distance of 8 mm from case.

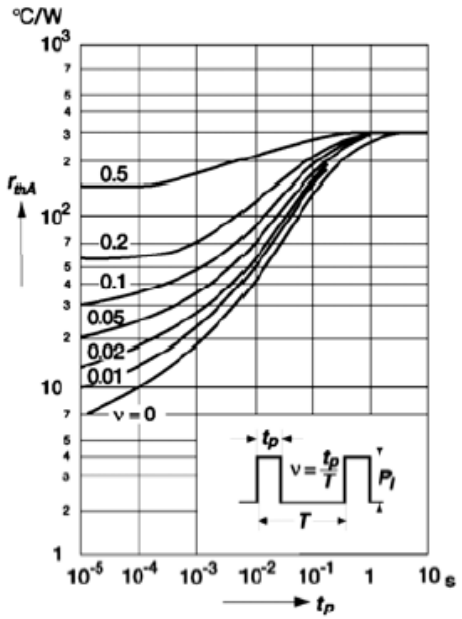



**Capacitance versus Zener voltage**

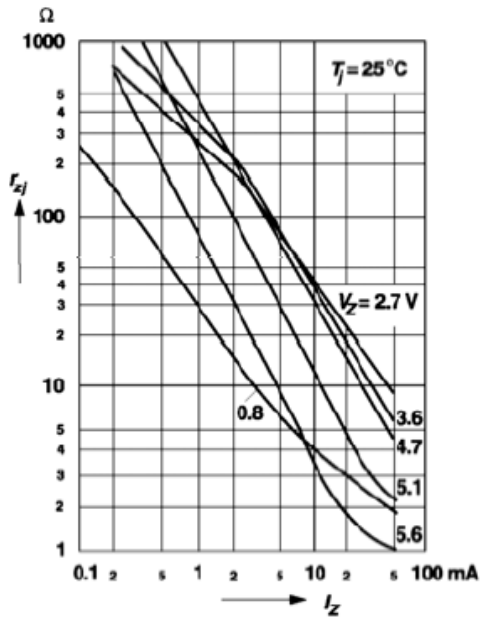



**Pulse thermal resistance versus pulse duration**

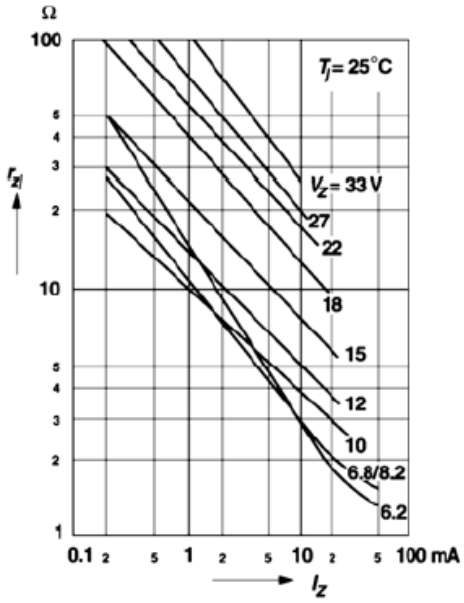
Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.




**Dynamic resistance versus Zener current**

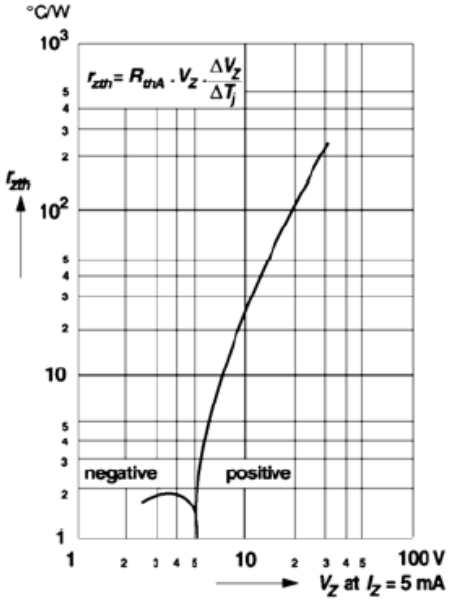


**Dynamic resistance versus Zener current**

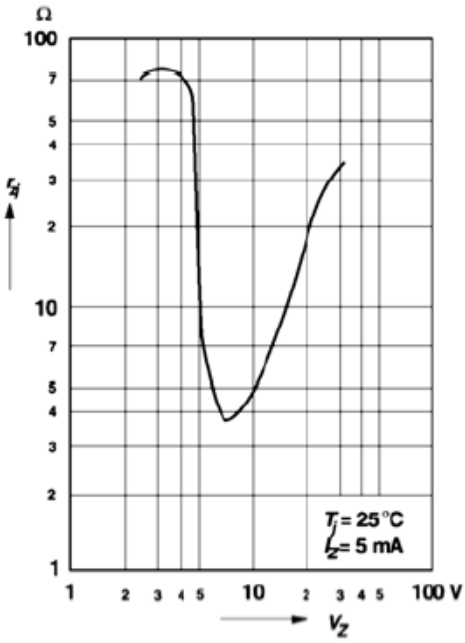



**Thermal differential resistance versus Zener voltage**

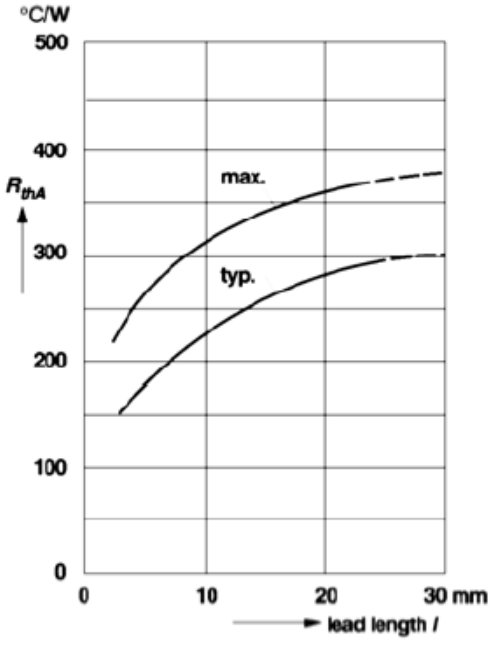
Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.



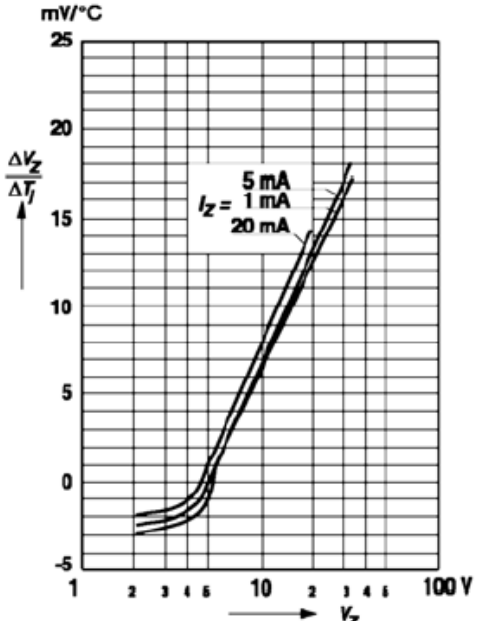

**Dynamic resistance versus Zener voltage**



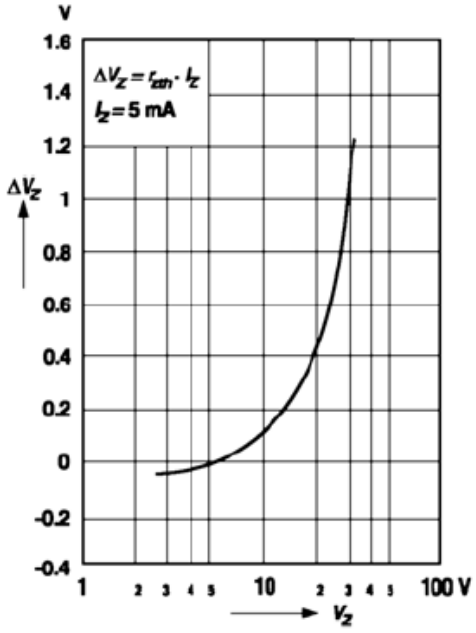

**Thermal resistance versus lead length**



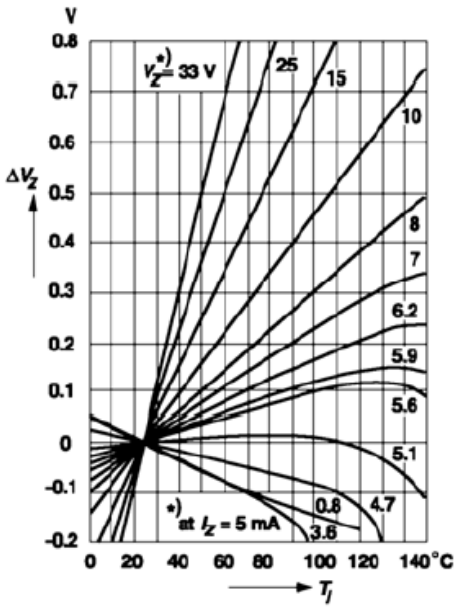
Temperature dependence of Zener voltage versus Zener voltage




Change of Zener voltage from turn-on up to the point of thermal equilibrium versus Zener voltage




Change of Zener voltage versus junction temperature

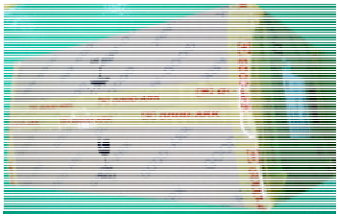


## 7.包装规格 PACKAGING SPECIFICATION

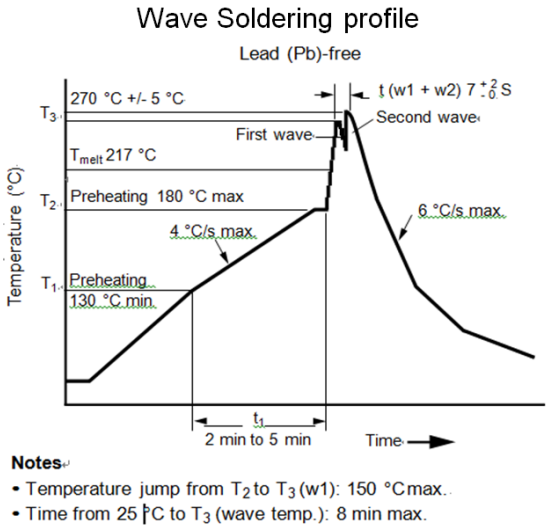
7.1 卷盘、内盒、外箱标贴式样及说明见下表 Label of tape and inner box and carton

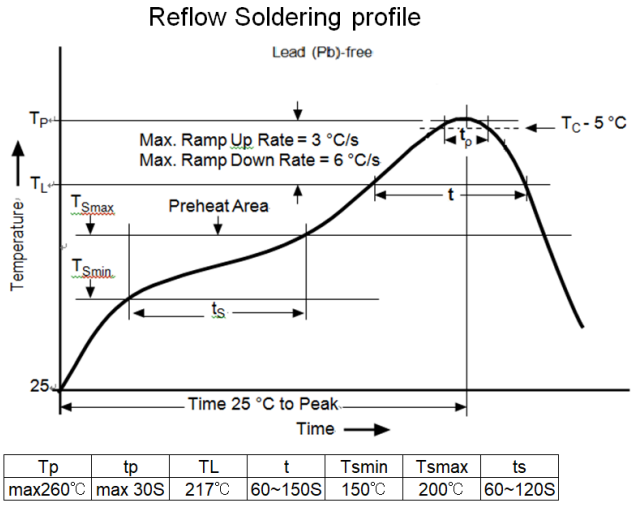
| 材料包装形式 Package type | 卷盘/内盒标贴尺寸 Label dimensions of tape and inner box | 卷盘/内盒标贴内容说明 Label content of tape and inner box | 外箱标贴尺寸 Label dimensions of carton | 外箱标贴内容说明 Content of carton label |
|---|---|---|---|---|
| MINI MELF | 卷盘tape box 65*30mm  | DEVICE：规格<br>QTY：数量<br>LOT NO：生产批号<br>QC：PASS章 | 101*76mm  | DEVICE：规格<br>CASE：封装形式<br>QTY：数量<br>DATE：生产周期<br>CO/NO：箱号<br>N.W.净重<br>G.W.毛重<br>P/O NO：定单号<br>QA：PASS章 |
| | 内盒 inner box 100*60mm  | DEVICE：规格<br>CASE：封装形式<br>QTY：数量<br>LOT NO：批号<br>QC：PASS章 | | |

7.2 卷装包装规范见下表 Package Spec of Reel

| 外形尺寸MM (Dimensions) | 数量 (Qty) | 产品装置 (Description) | 标贴位置 (position of label) |
|---|---|---|---|
| 194×185×120 | 25000PCS/盒<br>25000PCS/Box | <br>1列10层叠放<br>Ten layers placed together | <br>贴在盒体侧面左上角，盒体上印刷有pb-free无铅标识<br>The label position is on the upper left corner of the box. There is pb-free label on the box. |
| 395×265×223 | 100000PCS/箱<br>100000PCS/Carton | <br>横放2排1层<br>Two lines, one layer | <br>贴在箱体侧面左上角，胶带封口，箱体上印刷有pb-free 无铅标识。<br>The position is on the left and upper corner of box's side face. Use the adhesive tape to seal the cartons. There is pb-free mark printed on the cartons. |

## 8. 焊接温度曲线 SOLDER TEMPERATURE PROFILE




| Tp | tp | TL | t | Tsmin | Tsmax | ts |
|---|---|---|---|---|---|---|
| max260℃ | max 30S | 217℃ | 60~150S | 150℃ | 200℃ | 60~120S |

## 备注：焊接注意事项

⑴手工焊接的烙铁顶端温度（接触部位）在 360℃以下、5 秒以内；

⑵不要将烙铁顶端直接接触环氧等；

⑶轴向型产品不要在根部进行焊接，焊接点离本体越远越好；

⑷焊接过程中，260℃下的时间不得超过 10 秒；

⑸焊接后不要急冷，要自然冷却。

⑹焊接过程中和刚焊接好时，应避免任何力作用在本体和引线上；

⑺焊接结束后，不要推拉或扭动本体来纠正焊接位置；