# 广州新莱福新材料股份有限公司

GUANGZHOU NEWLIFE NEW MATERIAL CO ., LTD.

## 纳 入 仕 样 书

## SUPPLY SPECIFICATION SHEET

客户名：

Customer:

品名： 环形压敏电阻器

Part Name: Ring Varistor

压敏电压： E10=17-26v

Varistor Voltage

规格尺寸： 内径 Ød＝9.5 mm
外径 ØD＝16.5 mm
厚度 T＝1.7 mm

Size:

| | | | | | |
|---|---|---|---|---|---|
| 批准 | 周水明 | 审核 | | 编制 | 熊学斌 |

承认签署

APPROVED BY

1、适用范围 Scope

本规格书适用于吸收微型马达电火花的环形压敏电阻器。

This Specification Sheet is applied to ring varistors which absorb the spark of micromotor.

2、使用温度范围 Operation Temperature Range

－25℃～+85℃

3、测试条件 Test Condition

除特别说明外，试验及检测均在标准状态条件下进行。标准状态条件即

Unless otherwise specified, test and measurements shall be made at the standard condition.

The standard condition is:

温度(Temperature) …… 5～35 ℃

湿度(Humidity) …… 45～85 ％ RH

大气压(Atmospheric Pressure) …… 86～106 kPa

4、型号 Part No.

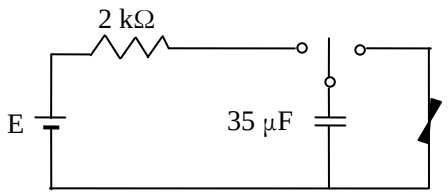
| 本公司的型号<br>Our Part No. | 客户的型号<br>Customer’s Part No. |
|---|---|
| SRV165AR170X5 | |

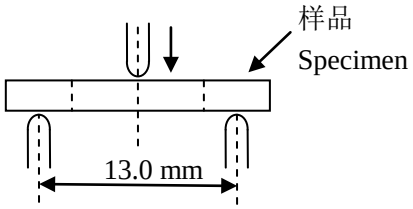
5、材质 Material code

钛酸锶($SrTiO_3$)

Strontium titanate

6、性能 Performance

<table>
<tr><th>项目 Item</th><th>规格值 Specified Value</th><th>试验项 Testing Item</th></tr>
<tr><td>1. 外观及尺寸<br>Construction and Dimension</td><td>见图－1<br>Shown in Figure-1</td><td></td></tr>
<tr><td>2. 压敏电压<br>Varistor Voltage</td><td><table><tr><td>$E_{10}$ (V)</td><td>α</td></tr><tr><td>17.0～26.0</td><td>2.5min.</td></tr></table></td><td>$\alpha = \frac{1}{\log(E_{10} / E_1)}$<br>$E_1$ ： 1mA 时的直流电压<br>DC voltage at 1 mA<br>$E_{10}$ ： 10mA 时的直流电压<br>DC voltage at 10 mA<br>α： 伏安非线性系数<br>Voltage-current non-linear coefficient</td></tr>
<tr><td>3. 额定功率<br>Rated Power</td><td>0.5W</td><td>以 0.5W 在+60℃下工作 1000 小时,不过热<br>Applied 0.5W at +60℃ for 1000 hrs , not overheat</td></tr>
<tr><td>4. 温度系数<br>Temperature Coefficient</td><td>±0.3 ％／℃</td><td>$\frac{E_{10}(50℃) - E_{10}(25℃)}{E_{10}(25℃)}$<br>×1／25（℃）×100（％）</td></tr>
<tr><td>5. 脉冲承受能力<br>Pulse Resistance</td><td><table><tr><td>特性<br>Character</td><td>变化率<br>Change Rate</td></tr><tr><td>$E_{10}$</td><td rowspan="2">±20％</td></tr><tr><td>α</td></tr></table></td><td>  <br>E10= 51V DC<br>脉冲次数：10 次<br>Number of pulse application：10 times<br>时间间隔：10 秒<br>Interval：10 seconds</td></tr>
</table>

<table>
<tr><th>项目 Item</th><th>规格值 Specified Value</th><th>试验条件 Testing Item</th></tr>
<tr><td>6. 静电容量<br>Capacitance</td><td>≤100nF</td><td>测定频率 Test frequency ：<br>1 kHz ± 0.1 kHz<br>测定电压 Test voltage ：<br>1 ± 0.5 Vrms</td></tr>
<tr><td>7. 抗折强度<br>Body<br>Strength</td><td>F≥9.8N</td><td> 
</td></tr>
<tr><td>8. 电极抗拉强度<br>Electrode<br>Tensile<br>Strength</td><td>F≥9.8N</td><td><table>
<tr><td>引线 Lead wire</td><td>Ø 0.6 (mm)</td></tr>
<tr><td>负载 Load</td><td>9.8 (N)</td></tr>
<tr><td>方向 Direction</td><td>垂直 Vertical</td></tr>
</table></td></tr>
<tr><td>9. 可焊性<br>Solderability</td><td>润湿均匀<br>Wet uniformly</td><td><table>
<tr><td>工具<br>Tool</td><td>烙铁<br>Soldering iron</td></tr>
<tr><td>焊料<br>Solder material</td><td>无铅焊锡<br>(SnCu)<br>Lead-free solders</td></tr>
<tr><td>温度<br>Temp.</td><td>350±10（℃）</td></tr>
<tr><td>接触时间<br>Touching time</td><td>1～2（sec.）</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>项目 Item</th><th>规格值 Specified Value</th><th>试验条件 Testing Item</th></tr>
<tr><td>10. 耐焊接热<br>Soldering<br>Heat<br>Resistance</td><td>电极不脱落，电阻体无裂纹<br>No electrode peels.<br>No crack in body.<br><br><table><tr><th>特性<br>Character</th><th>变化率<br>Change Rate</th></tr><tr><td>$E_{10}$</td><td rowspan="2">±20％</td></tr><tr><td>α</td></tr></table></td><td><table><tr><td>工具<br>Tool</td><td>烙铁<br>Soldering iron</td></tr><tr><td>焊料<br>Solder material</td><td>无铅焊锡<br>(SnCu)<br>Lead-free solders</td></tr><tr><td>温度<br>Temp.</td><td>350±10（℃）</td></tr><tr><td>预热温度<br>Preheat Temp.</td><td>150±10（℃）</td></tr><tr><td>预热时间<br>Preheat Time</td><td>1～5（min.）</td></tr><tr><td>接触时间<br>Touching time</td><td>0.5 max.（sec.）</td></tr></table><br>取出样品并放置 1～2 hrs.后测量<br>Measurement shall be made after 1~2 hrs. , after removal</td></tr>
<tr><td>11. 温度循环<br>Temperature<br>Cycle</td><td><table><tr><th>特性<br>Character</th><th>变化率<br>Change Rate</th></tr><tr><td>$E_{10}$</td><td rowspan="2">±20％</td></tr><tr><td>α</td></tr></table></td><td><table><tr><th>阶段<br>Step</th><th>温度<br>Temp.（℃）</th><th>持续时间<br>（min.）</th></tr><tr><td>1</td><td>-25（+0，-3）</td><td>30</td></tr><tr><td>2</td><td>+20±2</td><td>5</td></tr><tr><td>3</td><td>+85（+3，-0）</td><td>30</td></tr><tr><td>4</td><td>+20±2</td><td>5</td></tr></table><br>温度循环：5 次<br>Temperature cycle：5 cycles<br><br>取出样品并放置 1～2 hrs.后测量<br>Measurement shall be made after 1~2 hrs. , after removal</td></tr>
</table>

7、尺寸检查 Size Inspection

出货抽取 20 个样品检测，数据记录在“压敏电阻器出货检验报告”上。

The sampling number is 20 for ex-factory lot. Details should be recording to “Ring Varistor Product Inspection”.

| 部位<br>Dimension | 规格<br>Specification | 测定仪器<br>Inspecting Instrument | 测定要领<br>Main Point |
|---|---|---|---|
| 内径<br>Ød | 9.5±0.5 | 游标卡尺<br>Sliding Callipers | 紧贴内侧面，保持电阻体平直<br>Hold tightly to the inner side of the ring varistor and keep it straight |
| 外径<br>ØD | 16.5±0.5 | 游标卡尺<br>Sliding Callipers | 紧贴外侧面，保持电阻体平直<br>Hold tightly to the outer side of the ring varistor and keep it straight |
| 厚度<br>T | 1.7 MAX | 游标卡尺<br>Sliding Callipers | 垂直并紧贴平面<br>Hold upright and tightly to the surface of the ring varistor |

8、电性能 Electric Properties

每批货中，抽取 20 个检测压敏电压及非线性系数，满足规格值要求。

Take varitor voltage and non-linear coefficient inspection to check for satisfaction.

9、外观 Appearance

9．1　表面无裂纹、缺口及影响使用的缺陷。

No fissures, cracks or defects that would affect part’s function on the body.

9．2　电极印刷良好，没有明显错位。

The electrodes are OK, no visual evidence displacement.

10、　包装规格 Packing

参考包装规格图。

Refer to the attenched sheet.

11、　其它 Other

11.1　每批附检测报告。

Inspection data must be attached to every delivery lot.

11.2　规格书的更改须双方协商、同意。

Any changes on this supply specification sheet must be confirmed by both parties.

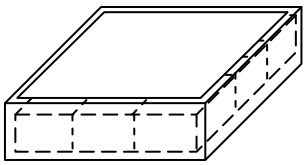
[出货包装规格]
Packing Specification

客户名：
Customer

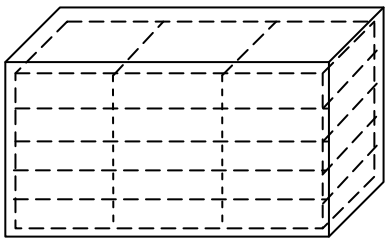
压 敏 电 压 ：　E10=17-26v
Varistor Voltage

尺寸：　内径 Ød＝9.5 mm
Size　外径 ØD＝16.5mm
厚度 T＝1.7mm

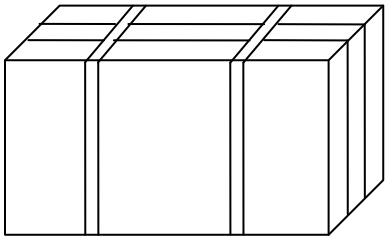
A 阶段　A Step ： 500PCS × 1 盒 Box ＝ 500 PCS



B 阶段　B Step ： 500 PCS × 3 盒 Boxes × 5 层 Layers ＝ 7500 PCS



C 阶段　C Step ：　出货包装状态　Finished packing



图－1
Figure-1