



四川索斯特电子有限公司
Sichuan Source-Set Electronics Co., Ltd
石英晶体规格书
CRYSTAL UNIT SPECIFICATIONS



规 格 书
SPECIFICATIONS

规格书编号/ID: M245761010A

物料描述/
Product Description: 24.576M 10PF 10PPM

料号/
Part Number: S47SMD24.576M10PF10R30B3

制作人/
Approved by: 莫平会

审核人/
Checked by: 陈晓群

日期/
Date: 2023-3-31 盖章/
Stamp: _____

**客户签署/
Customer signature required**

公司名称/
Company: _____

客户料号/
Customer Part Number: _____

承认人/
Approved by: _____

批准人/
Confirmed by: _____

日期/
Date: _____

盖章/
Stamp: _____



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一、电性能参数 ELECTRICAL PARAMETERS:

| No. | 特性 Characteristic | 范围 Limits | 备注 Remark |
|-----|---------------------------------------|--------------|----------------------------------|
| 1 | 产品型号 Ackage Type | SST-M49SSMD | |
| 2 | 标称频率 Nominal Frequency | 24.576MHz | |
| 3 | 振动模式 Mode of Vibration | AT—Fund (基频) | |
| 4 | 常温频差 Frequency Tolerance | ±10ppm | 25±3°C 测试 Measure at 25°C±3°C |
| 5 | 工作温度范围 Operating Temperature Range | -20°C~+70°C | |
| 6 | 频率稳定度 Frequency Stability | ±30ppm | |
| 7 | 储存温度范围 Storage Temperature Range | -40°C~+85°C | |
| 8 | 负载电容 Load capacitance | 10pF | |
| 9 | 谐振电阻 Equivalent Series Resistance | 40 Ω max | |
| 10 | 激励功率 Drive Level | 100 μW max | |
| 11 | 绝缘电阻 Insulation Resistance | 500M Ω | At 250V _{DC} |
| 12 | 静电容 Shunt Capacitance | 5pF max | |
| 13 | 年老化率 Aging Per Year | ±5ppm | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |



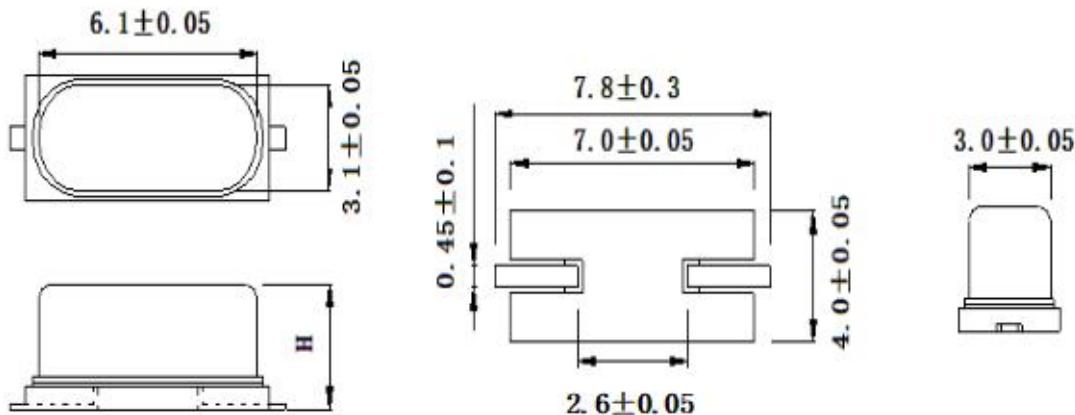
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二、可靠性试验 Reliability test

| No. | 测试项目 Item | 测试条件 Test Conditions | 判定标准 Basis of Verdict |
|-----|----------------------------------|--|---|
| 1 | 跌落冲击 Drop | 75cm 高度自由下落到 3cm 厚度的硬质木板 3 次 3 Times Free Fall from 75cm height table to 3cm thickness hard wood board | $\Delta F \leq \pm 5\text{ppm}$, $\Delta R \leq 5\text{ohm}$ or $\leq 10\%$ |
| 2 | 模拟回流焊 Reflow | 240°C $\leq T \leq$ 265°C t=60±30s T=260°C±5°C t=40±10s T(max)= 265°C | $\Delta F \leq \pm 5\text{ppm}$, $\Delta R \leq 5\text{ohm}$ or $\leq 10\%$ |
| 3 | 可焊性 Solder | 260°C ± 5°C 焊锡槽浸润 3±0.5 秒 Temperature: 260°C ± 5°C Time: 3±0.5 Seconds | 新锡覆盖率 $\geq 90\%$ the solder immersion surface $\geq 90\%$ |
| 4 | 耐焊接热 Solder Heating | 280°C ± 5°C 焊锡槽浸润 10±1 秒 Temperature: 280°C ± 5°C Time: 10±1Seconds | $\Delta F \leq \pm 5\text{ppm}$, $\Delta R \leq 5\text{ohm}$ or $\leq 10\%$ |
| 5 | 高温储存 High temperature storage | 100°C ± 2°C 烘箱中烘烤 96±1 小时 Temperature: 100°C ± 5°C Time: 96±1 Hours | $\Delta F \leq \pm 5\text{ppm}$, $\Delta R \leq 5\text{ohm}$ or $\leq 10\%$ |
| 6 | 高温老化 High temperature ageing | 85°C ± 5°C 之烘箱中烘烤 30 天 Temperature: 85°C ± 5°C, Time: 30days | $\Delta F \leq \pm 5\text{ppm}$, $\Delta R \leq 5\text{ohm}$ or $\leq 10\%$ |
| 7 | 低温储存 Low temperature storage | -40°C ± 2°C 环境中保持 96±1 小时 Temperature: -40°C ± 2°C Time: 96±1 Hours | $\Delta F \leq \pm 5\text{ppm}$, $\Delta R \leq 5\text{ohm}$ or $\leq 10\%$ |
| 8 | 恒温恒湿 Humidity | 在湿度为 90~95%, 温度为 40±2°C 环境中保持 96 小时 Temp: 40°C ± 2°C, Humidity: 90~95% Times: 96 Hours | $\Delta F \leq \pm 5\text{ppm}$, $\Delta R \leq 5\text{ohm}$ or $\leq 10\%$ |
| 9 | 振动 Vibration | 频率: 10~50Hz, 幅度: 0.75mm 频率: 50Hz~500Hz, 加速度幅度: 98m/s² 周期: 10~500~10Hz, 15min 振动方向: X、Y、Z 振动时间: 每个方向 2 小时 Frequency: 10~50Hz, Amplitude: 0.75mm Frequency: 50~500Hz, Amplitude: 98m/s² Cycle time: 10~500~10H, 15min Direction: X、Y、Z Duration: 2 Hours /direction | $\Delta F \leq \pm 5\text{ppm}$, $\Delta R \leq 5\text{ohm}$ or $\leq 10\%$ |

三、外形尺寸 Outline Dimensions (unit: mm)



| NO. | 规格 | H |
|-----|----------|--------|
| 1. | M49S-SMD | 2.3Max |

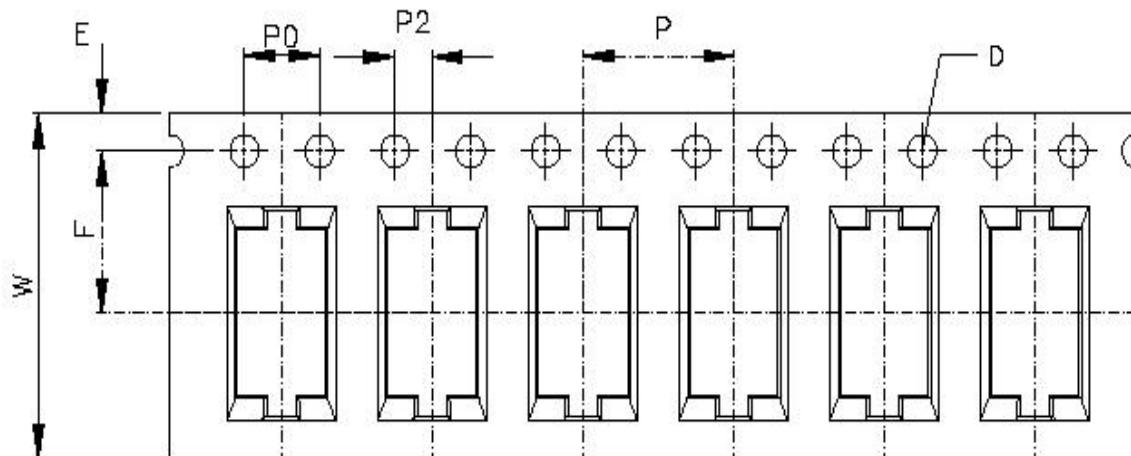
四、印字 Marking

当前字样:



五、包装方式 Packing

T/R: 3000pcs/ REEL



单位 units : mm:

| Model | A | B | D | E | F | P | P0 | T | W |
|-----------|---------|---------|-------|----------|---------|---------|---------|----------|--------|
| SST-47SMD | 4.7±0.1 | 9.5±0.1 | Φ 1.5 | 1.75±0.1 | 7.5±0.1 | 8.0±0.1 | 4.0±0.1 | 0.3±0.05 | 16±0.3 |

| SPEC 1 | 12 | 16 | 24 | 32 | 44 | 56 | 72 | 88 |
|--------|------|------|------|------|------|------|------|------|
| C1±1 | 330 | 330 | 330 | 330 | 330 | 330 | 330 | 330 |
| A±0.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 |
| B±0.2 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| H+2.0 | 12.5 | 16.5 | 24.5 | 32.5 | 44.5 | 56.5 | 72.5 | 88.5 |
| T±0.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| D±0.5 | ø100 |

