

承 认 书

SPECIFICATIONS FOR APPROVAL

客户名称:
Customer: _____

产品名称: 石英晶体谐振器
Description: _____
CRYSTAL RESONATOR

产品型号: 3225 40M 15PF 10PPM
SPECIES _____

标称频率: 40.000MHz
FREQUENC _____

料 号:
MATERIAL CODE _____
S322540M15PF10PPM

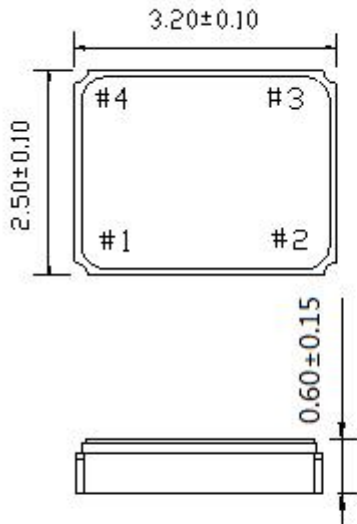
| 供应商确认 | | | | 客户确认 | | | |
|----------------|-------------------------|----------------------|--|----------------|-------------------------|-------------------------|-------------------------------------|
| 品管部 QC Dept | 工程部 Engineer Dept | 业务部 Trade Dept | <input checked="" type="checkbox"/> 合格 PASS | 品管部 QC Dept | 工程部 Engineer Dept | 采购部 Purchase Dept | <input type="checkbox"/> 合格 PASS |
| 莫 平 会 | 梁 雄 | 陈 晓 群 | <input type="checkbox"/> 不合格 NG | | | | <input type="checkbox"/> 不合格 NG |

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电话: 0830-8172777、0830-8106299 传真: 0830-8106266

GENERAL SPECIFICATIONS (电气特性) :

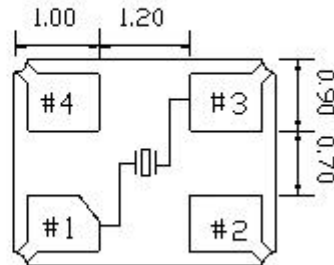
| No. | Parameters | Symb. | Electrical Specification | | | | Notes |
|-----|-----------------------------|------------------|--------------------------|------|------|-------|--|
| | | | Min. | Typ. | Max. | Units | |
| 1 | Nominal Frequency | F0 | 40.000000 | | | MHz | |
| 2 | Overtone order | | Fundamental | | | | |
| 3 | Frequency Tolerance | $\Delta F/F0$ | -10 | - | +10 | ppm | at 25°C±3°C |
| 4 | Operating Temperature Range | T _{OPR} | -20 | - | +85 | °C | |
| 5 | Frequency Stability | TC | -30 | - | +30 | ppm | The reference temperature shall be +25°C |
| 6 | Storage Temperature | T _{STG} | -55 | - | +125 | °C | |
| 7 | Load capacitance | CL | - | 15 | - | pF | |
| 8 | Equivalent resistance | ESR | - | - | 40 | Ω | |
| 9 | Level of drive | DL | - | 100 | 300 | μW | |
| 10 | Insulation Resistance | | 500 | - | - | MΩ | DC100V ±15V. |
| 11 | Shunt Capacitance | C0 | - | - | 7 | pF | |
| 12 | Aging Per Year | Fa | -3 | - | +3 | ppm | First Year |
| 13 | Package type | | 3225 seam | | | | |

DIMENSIONS SPECIFICATIONS (外形尺寸)

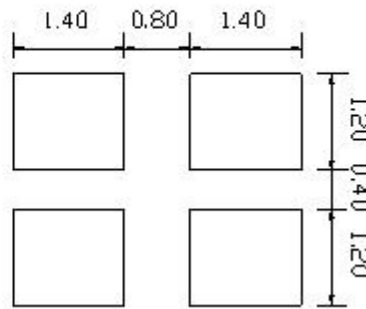


| Pin | Connection |
|-------|------------|
| #1,#3 | X'tal |
| #2,#4 | GND |

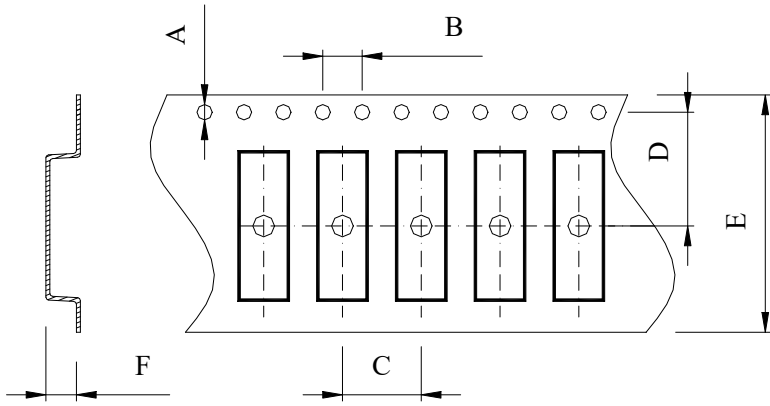
Top View



Recommended Solder Pattern

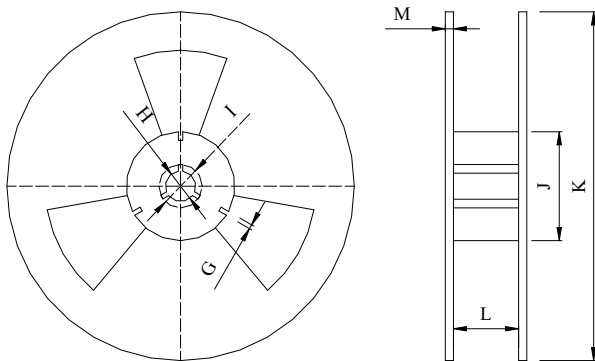


Tape Dimensions(unit : mm)



| A | B | C | D | E | F |
|------|-----|-----|-----|-----|-----|
| 1.50 | 4.0 | 4.0 | 3.5 | 8.0 | 1.0 |

Reel Dimensions(unit: mm)



| G | H | I | J | K | L | M |
|-----|------|------|------|-----|-----|-----|
| 2.5 | 13.5 | 21.6 | 60.0 | 178 | 9.5 | 1.6 |

*3000pcs/Reel

| No. | Test Item | Test Conditions | Spec Code |
|-----|---|--|-----------|
| 1 | High Temperature Storage | Temperature: 125°C ± 5°C Time: 1000 ± 12 Hours | A |
| 2 | Temperature Cycle | Temperature 1: -55°C ± 5°C Temperature 2: 125°C ± 5°C Temperature change between T1 and T2 at soonest Run 1000 cycles, maintain T1 and T2 30 minutes each in one cycle | A |
| 3 | High Temperature, High Humidity Storage | Temperature: 85°C ± 5°C Relative Humidity: 80%--85% Time: 250Hours ± 24 Hours | A |
| 4 | Steam Aging | Temperature: 97°C ± 5°C; Time: 24 Hours 260°C solder pot to check solderability | A |
| 5 | Solderability | Pre-heat temperature: +150 ± 10°C Pre-heat time: 60~120s When the temperature of the specimen is reached at +215 ± 3°C, it shall be left for 30 ± 1sec. Peak temperature 240 ± 5°C Material: Pb-free (Sn-3.0Ag-0.5Cu) Flux: Rosin resin methyl alcohol solvent (1: 4) | B |
| 6 | Aging | Temperature: 85°C ± 5°C; Time: 250 ± 12Hours | A |
| 7 | Drop Test | Preparation: Test pieces should be fixed on the dummy load with 200g weight. Condition: Height 1.5m onto concrete Drop times :10 times in 6 mutually perpendicular axes | A |
| 8 | Vibration | Frequency Range: 10Hz~2000Hz Amplitude: 1.5mm or 20G 4Hours in each direction, total 12Hours | A |
| 9 | Reflow resistance | Pre-heat temperature : +150~180°C Pre-heat time: 90±30s Heat temperature : more than +230°C Heat time: 30s ±10s Peak temperature : +260±5°C Peak time: less than 10s | A |

| Specification code | Specification |
|--------------------|---|
| A | $\Delta f/f \leq \pm 3$ ppm $\Delta CI/CI \leq \pm 15\%$ or 5 Ω make use larger value |
| B | The electrodes should be covered by a new solder at least 90% of immersed area. |