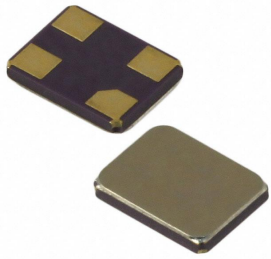


SMD QUARTZ CRYSTAL RESONATOR



4 Pad Version 4.0×2.5 mm

- ±10 ppm type available
- Excellent Reliability Performance
- EMI shielding possible by grounded lid
- Reflow soldering temperature: 260°C max
- Ceramic Seam Weld package



★ PARAMETERS

| PARAMETERS | SPECIFICATION |
|------------------------|-------------------------------------|
| Frequency Range | 12~60MHz |
| Operation Mode | Fundamental |
| Loading Capacitance | 9pF Std. 8 to 32pF Series available |
| Drive Level | 10 μ W (300 μ W Max) |
| Frequency Tolerance | ±10ppm~±30ppm (at 25°C) |
| Equivalent Resistance | 80 Ω Max |
| Frequency Stability | ±5ppm~±50ppm |
| Operating Temp. Range: | -10~+60°C to -40~+85°C |
| Storage Temp. Range: | -55~+125°C |

○ All specification subject change without notice.

★ FREQUENCY STABILITY VS. TEMPERATURE

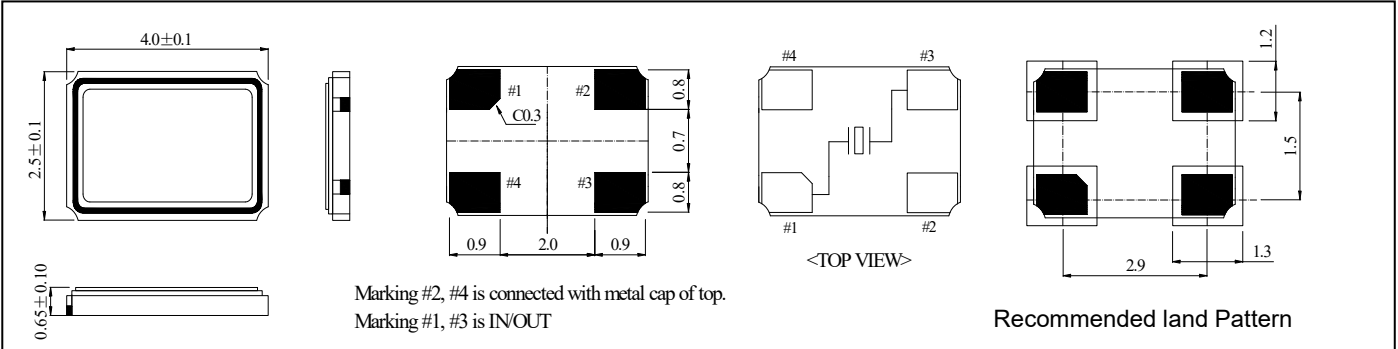
| peration Temperature Range | Frequency Stability | | | | |
|-------------------------------|---------------------|--------|--------|--------|--------|
| | ±10ppm | ±15ppm | ±20ppm | ±30ppm | ±50ppm |
| -10°C~+60°C | ● | ○ | ○ | ○ | ○ |
| -20°C~+70°C | ○ | ○ | ● | ○ | ○ |
| -40°C~+85°C | | ○ | ○ | ● | ○ |

● standard ○ available

★ ESR (SERIES RESISTANCE RS)

| Frequency | Vibration Mode | ESR |
|--------------|----------------|----------|
| 12-15.999MHz | AT CUT/FUND. | 80Ω(MAX) |
| 16-19.999MHz | AT CUT/FUND. | 60Ω(MAX) |
| 20-25.999MHz | AT CUT/FUND. | 50Ω(MAX) |
| 26-60.000MHz | AT CUT/FUND. | 40Ω(MAX) |

★ DIMENSIONS& LAND PATTERN LAYOUT (Unit: mm)

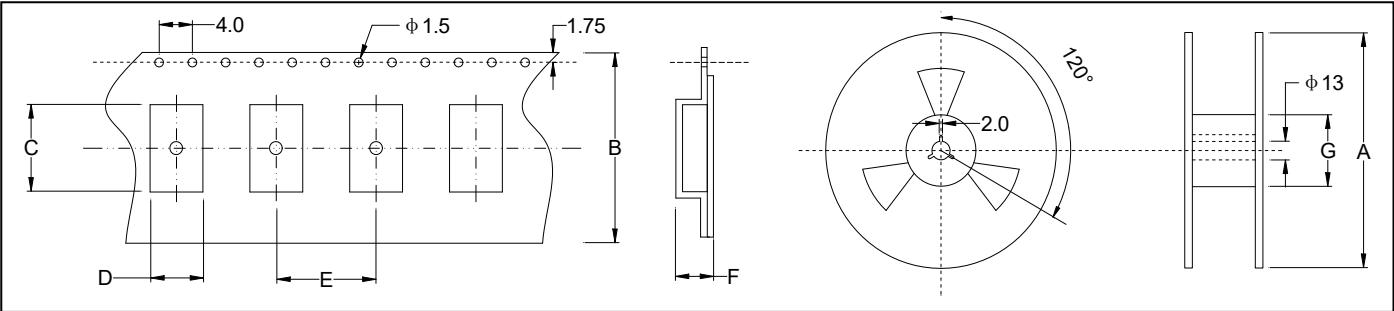


★ PART NUMBER GUIDE e.g. *FTX16.000M10SM4S-10/10B* (*SM4S=4.0×2.5 SMD SEAM TYPE)

| Logo | Quartz Crystal Resonator | Frequency Hz | Load Capacitance pF | Package | Frequency Tolerance ppm | Frequency Stability ppm | Operating Temp. Range |
|------|--------------------------|--------------|---------------------|---------|-------------------------|-------------------------|-----------------------|
| FT | X | 16.000M | 10 | SM4S | 10 | 10 | B |

| Definition | Description |
|-----------------------------|-----------------------|
| Operating Temperature Range | A: -10~+60℃ |
| | B: -20~+70℃ |
| | C: -30~+80℃ |
| | D: -40~+85℃ |
| | E: Customer specified |

★ TAPING SPECIFICATION (Unit: mm)



| | A | B | C | D | E | F | G |
|-------------------|---------|----------|-----------|-----------|---------|---------|----------|
| SMD4025 | 178±2.0 | 12.0±0.3 | 4.30±0.10 | 2.80±0.10 | 8.0±0.1 | 0.9±0.1 | 60.5±1.0 |
| 1000 pcs per reel | | | | | | | |

★ REFLOW SOLDERING PROFILE

