

ULTRA MINIATURE CERAMIC SMD CRYSTAL (2.0 x 1.6 x 0.5mm)

FEATURES:

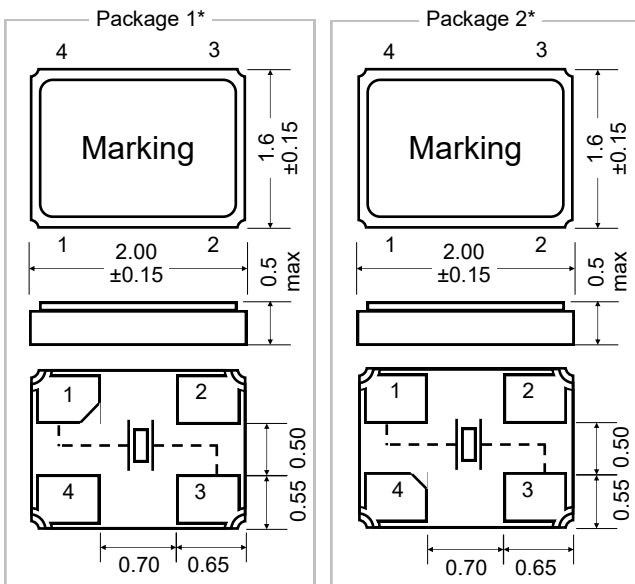
- TIGHT TOLERANCE AND STABILITY AVAILABLE
- AUTOMOTIVE GRADE AEC-Q200 QUALIFIED VERSION AVAILABLE
- SUITABLE FOR ROHS REFLOW



SPECIFICATION

| | | | |
|------------------------------|---|---------------------------------|---------------------------------|
| FREQUENCY RANGE | 16.000MHz ~ 80.000MHz | | |
| FREQUENCY TOLERANCE @ 25°C | ±10ppm ~ 100ppm (See P/N guide for other options) | | |
| FREQUENCY STABILITY | ±10ppm ~ 100ppm (See P/N guide for other options) | | |
| OPERATING TEMPERATURE RANGE | STD: 0°C ~ 70°C, Option: -40°C ~ 85°C (See P/N guide for other options) | | |
| STORAGE TEMPERATURE RANGE | -55°C ~ 125°C | | |
| LOAD CAPACITANCE | STD: 8pF (See P/N guide for other options) | | |
| SHUNT CAPACITANCE | 3.5pF max. | | |
| INSULATION RESISTANCE | 500MΩ min. @ 100V _{DC} ± 15V _{DC} | | |
| DRIVE LEVEL | 200μW max. | | |
| AGING @ 25°C ± 3°C | ±2.0ppm / 1 st year max. | | |
| EQUIVALENT SERIES RESISTANCE | 16.000MHz ~ 20.000MHz: 150Ω max. | 20.001MHz ~ 25.000MHz: 80Ω max. | 40.001MHz ~ 80.000MHz: 50Ω max. |
| | 25.001MHz ~ 40.000MHz: 60Ω max. | | |
| OPERATION MODE | AT cut, Fundamental | | |

PACKAGE DIMENSIONS

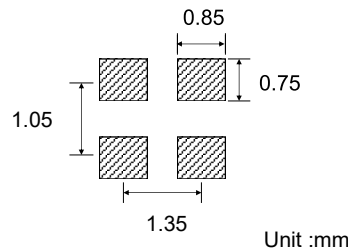


| Pin Configuration | |
|-------------------|------|
| 1 | Xtal |
| 2 | GND |
| 3 | Xtal |
| 4 | GND |

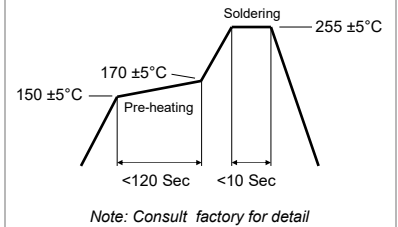
* Package 1 and 2 are provided interchangeably based on material availability.
** Different chamfer location between package 1 and 2.

Unit : mm

SOLDER PATTERN



REFLOW PROFILE



PART NUMBERING GUIDE

CS21 - F 50 50 HM 08 - 26.000M - TR

| | | | |
|-------------------------------|--|---|--|
| Product series CS21 | Stability 00: ± 100ppm 50: ± 50ppm 30: ± 30ppm 25: ± 25ppm 20: ± 20ppm 15: ± 15ppm 10: ± 10ppm XX: Two digit for Stability | Load Capacitance 07: 7pF 08: 8pF 10: 10pF 12: 12pF 16: 16pF 18: 18pF 20: 20pF 22: 22pF 24: 24pF 28: 28pF 32: 32pF S: Series | Options Q: AEC-Q200 Qualified TR: Tape and reel |
| Mode F: Fundamental | Tolerance @ 25°C 00: ± 100ppm 50: ± 50ppm 30: ± 30ppm 25: ± 25ppm 20: ± 20ppm 15: ± 15ppm 10: ± 10ppm XX: Two digit for Tolerance | Operating Temperature A: -55 B: -50 C: -40 D: -35 E: -30 F: -20 G: -10 H: 0 J: 50 K: 60 M: 70 N: 75 O: 80 P: 85 Q: 85 R: 90 S: 100 T: 105 U: 125 X: custom | Frequency M: MHz |

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