

QUARTZ CRYSTAL UNIT IN CERAMIC SEAM SEAL SMD PACKAGE, SIZE 3.2 X 2.5MM.

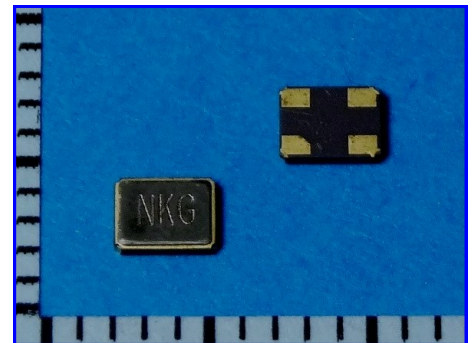
S3M

PRODUCT FEATURES

- MINIATURE PACKAGE SIZE 3.2 X 2.5 X 0.6MM WITH 4 PADS.
- EXCELLENT HEAT AND SHOCK RESISTANCE.
- HIGHLY RELIABLE AND LOW AGING DUE TO VACUUM SEAL.
- AUTOMOTIVE GRADE COMPLIANT TO AEC-Q200 IS AVAILABLE.

APPLICATIONS

- WIRELESS, BLUETOOTH
- MOBIL COMMUNICATION
- PORTABLE DEVICES
- USB MEMORY DEVICES.



PRODUCT SPECIFICATIONS

| PARAMETER | SYMBOL | SPECIFICATIONS | REMARKS |
|--------------------------------|----------------|--|--|
| FREQUENCY RANGE | F_N | 11.0 ~ 120.0MHZ | FUNDAMENTAL UP TO 60MHZ |
| OPERATION MODE | — | FUNDAMENTAL / 3RD OVERTONE | OVERTONE ABOVE 54MHZ |
| FREQUENCY TOLERANCE | $\Delta f/f$ | $\pm 10\text{PPM}$, $\pm 20\text{PPM}$, $\pm 30\text{PPM}$, $\pm 50\text{PPM}$ | OTHER OPTIONS AVAILABLE |
| STABILITY OVER OPERATING TEMP. | T_C | $\pm 10\text{PPM}$, $\pm 20\text{PPM}$, $\pm 30\text{PPM}$, $\pm 50\text{PPM}$ | DEPENDING ON OPERATING TEMPERATURE RANGE |
| OPERATING TEMPERATURE RANGE | T_{OP} | $-20^\circ\text{C} \sim +70^\circ\text{C}$ OR $-40^\circ\text{C} \sim +85^\circ\text{C}$ | OTHER OPTIONS AVAILABLE |
| LOAD CAPACITANCE | CL | 8 TO 32PF OR SERIES | PLEASE SPECIFY LOAD CAPACITANCE |
| EQUIVALENT SERIES RESISTANCE | ESR | 150 Ω MAX | FUND MODE 11 ~ 12MHZ |
| | | 100 Ω MAX | FUND MODE 12 ~ 14MHZ |
| | | 80 Ω MAX | FUND MODE 14 ~ 16MHZ |
| | | 60 Ω MAX | FUND MODE 16 ~ 20MHZ |
| | | 50 Ω MAX | FUND MODE 20 ~ 26MHZ |
| | | 40 Ω MAX | FUND MODE 27 ~ 60MHZ |
| | | 100 Ω MAX | 3RD OT MODE 54 ~ 120MHZ |
| DRIVE LEVEL | DL | 100 μW TYP, 300 μW MAX | — |
| AGING FIRST YEAR | $\Delta f/y_1$ | $\pm 3\text{PPM}$ | @+25 $^\circ\text{C}$ |

MECHANICAL DIMENSIONS

Top view dimensions: 3.2±0.05 (width), 2.5±0.05 (height), 0.8 MAX (thickness). Pad positions are numbered 1, 2, 3, 4.

Side view shows a thickness of 0.8 MAX.

Pad layout view shows pad 1 (width 1.2, height 0.9), pad 2 (width 1.2, height 0.7), pad 3 (width 1.2, height 0.9), and pad 4 (width 1.2, height 0.7).

RECOMMENDED LAND PATTERN

Land pattern dimensions: 1.3 (width), 1.0 (height), 0.5 (pad width), 0.5 (pad height).

| PAD | FUNCTION |
|-----|-------------|
| 1 | CRYSTAL |
| 2 | N.C. or GND |
| 3 | CRYSTAL |
| 4 | N.C. or GND |

Ceramic seam seal crystal package
3.2x2.5mm with 4 pads

CX-3M CX-3Mp4h08
C 2015-02

No scale Unit: mm

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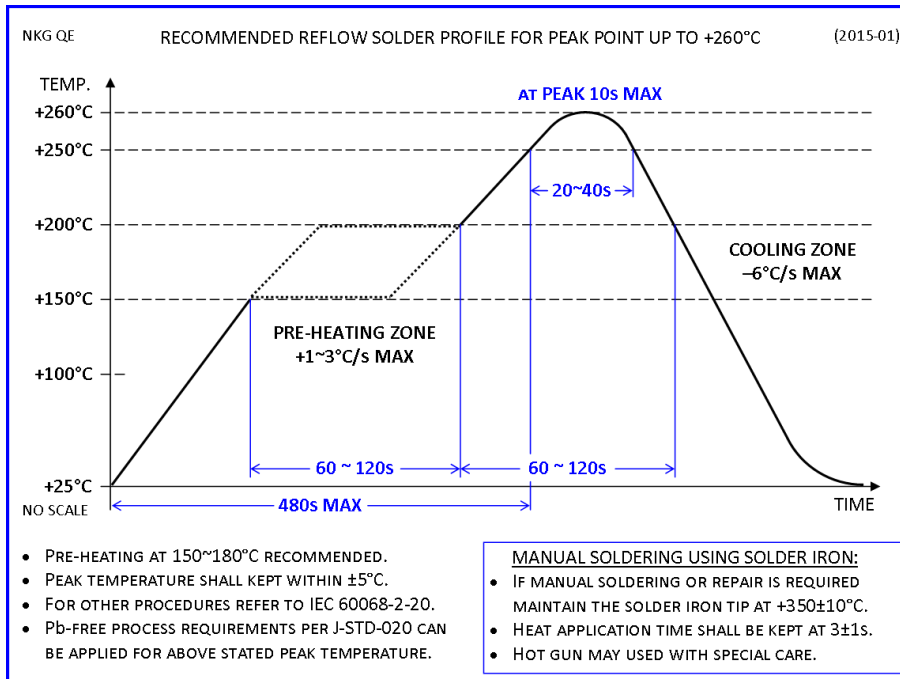
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ENVIRONMENTAL COMPLIANCE INFORMATION

- ROHS 6/6 COMPLIANT (DIRECTIVE 2011/65/EC) AND LEAD-FREE.
- COMPLIANT TO ROHS 2 (DIRECTIVE 2015/863) (ALSO CALLED ROHS 10).
- HALOGEN-FREE PER DEFINITION OF IEC 61249-2-21 2033.
- NONE-USE OF SVHCS PER REACH IS CURRENTLY GIVEN, CONTINUOUSLY MONITORED AND UPDATED AS THE COMMISSION ISSUES NEW RELEASES.
- PRODUCT DOES NOT CONTAIN ANY PHTHALATES (PHS).
- PRODUCT DOES NOT CONTAIN PVC (POLYVINYL CHLORIDE).
- PRODUCT DOES NOT CONTAIN PFOS/PFOA NOR BEING SAME USED TO MANUFACTURE THE COMPONENTS OF THIS PRODUCT.
- MOISTURE SENSITIVITY LEVEL (MSL) 1 PER J-STD-020C.

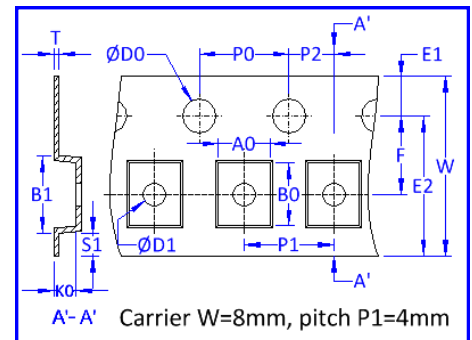


SOLDERING RECOMMENDATIONS



PACKAGING INFORMATION

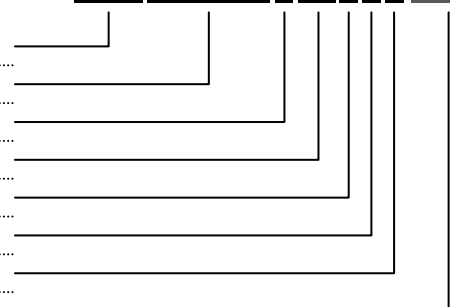
- PACKAGING IN TAPE & REEL IN COMPLIANCE TO EIA-481.
- QTY PER REEL: 3,000PCS OR ALTERNATIVELY 2,000PCS
- REEL DIA A=180MM.
- EMBOSSED CARRIER TAPE WIDTH W = 8MM (OR 12MM).
- COMPONENT PITCH P1 = 4MM.



PART NUMBER SYNTAX

- PART NUMBER FAMILY (REPRESENTS PRODUCT MODEL AND PACKAGE SIZE / TYPE)
- NOMINAL FREQUENCY (IN MHZ WITH AT LEAST FOUR DIGITS AFTER DECIMAL POINT)
- OPERATION MODE CODE (F = FUNDAMENTAL / T = 3RD OVERTONE)
- LOAD CAPACITANCE (ACTUAL VALUE OR "00" FOR SERIES)
- OPERATING TEMPERATURE RANGE CODE (I.E. C= -10~60°C, E= -20~70°C, M= -40~85°C)
- FREQUENCY TOLERANCE DESIGNATOR (I.E. 1=10PPM, 2=20PPM, Y=15PPM, Z=25PPM)
- FREQUENCY STABILITY DESIGNATOR (I.E. 3=30PPM, 5=50PPM, Y=15PPM, Z=25PPM)
- PART NUMBER EXTENSION (ONLY FOR NONE-STANDARD OR CUSTOMIZED PART)

S3M 25.0000 F 18 E 23 -EXT



FOR MORE INFORMATION PLEASE CONTACT US.

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