

TUNING FORK QUARTZ CRYSTAL UNIT IN CERAMIC SEAM SEAL SMD PACKAGE, SIZE 1.2 X 1.0MM.

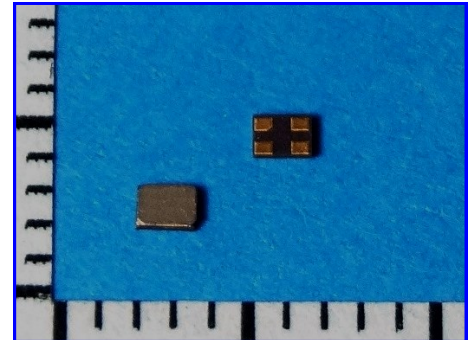
01-CR3-12

PRODUCT FEATURES

- MINIATURE SIZE PACKAGE SIZE 1.2 X 1.0 X 0.35MM WITH 4 PADS.
- EXCELLENT HEAT AND SHOCK RESISTANCE.
- HIGHLY RELIABLE AND LOW AGING HERMETICALLY SEALED PACKAGE.
- PERFECT FOR SMT AND LEAD-FREE REFLOW PROCESS.

APPLICATIONS

- REAL TIME CLOCKS
- PORTABLE DEVICES
- TIMING DEVICES



PRODUCT SPECIFICATIONS

PARAMETER	SYMBOL	SPECIFICATIONS	REMARKS
FREQUENCY	F_N	32.768kHz	—
OPERATION MODE	—	FUNDAMENTAL	—
FREQUENCY TOLERANCE	$\Delta f/f$	$\pm 20\text{PPM}, \pm 30\text{PPM}$	OTHER OPTIONS AVAILABLE
TEMPERATURE COEFFICIENT	K	$-0.03 \pm 0.01 \text{PPM}/\Delta^\circ\text{C}^2$	SEE NOTE 1
TURNOVER POINT TEMPERATURE	T_{TP}	$+25 \pm 5^\circ\text{C}$	SEE NOTE 2
OPERATING TEMPERATURE RANGE	T_{OP}	$-40^\circ\text{C} \sim +85^\circ\text{C}$ OR $-40^\circ\text{C} \sim +105^\circ\text{C}$	OTHER OPTIONS AVAILABLE
LOAD CAPACITANCE	CL	6pF, 7pF, 9pF, 12.5pF	PLEASE SPECIFY LOAD CAPACITANCE
SERIES RESONANCE RESISTANCE	R_S	90k Ω MAX	@+25 $^\circ\text{C}$
SHUNT CAPACITANCE	C_0	1.5pF TYP	—
DRIVE LEVEL	DL	0.1 μW TYP, 1.0 μW MAX	—
AGING FIRST YEAR	$\Delta f/y_1$	$\pm 3\text{PPM}$	@+25 $^\circ\text{C}$
INSULATION RESISTANCE	IR	>500M Ω	@100 $\pm 15\text{V}_{\text{DC}}$
STORAGE TEMPERATURE RANGE	T_{ST}	$-55^\circ\text{C} \sim +125^\circ\text{C}$	—

NOTE 1: THE TEMPERATURE COEFFICIENT IS THE CONSTANT OF THE PARABOLIC CURVATURE WHICH THE FREQUENCY DESCRIBES OVER OPERATING TEMPERATURE RANGE.

NOTE 2: THE TURNOVER TEMPERATURE DESCRIBES THE LOCATION OF THE TURNING POINT OF THE PARABOLIC FUNCTION.

MECHANICAL DIMENSIONS

RECOMMENDED LAND PATTERN

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

Ceramic seam seal crystal package
1.2x1.0mm with 4 pads

CX1210 A 2020-04

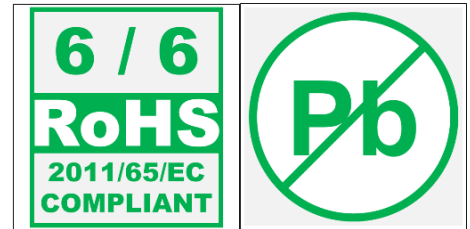
No scale Unit: mm

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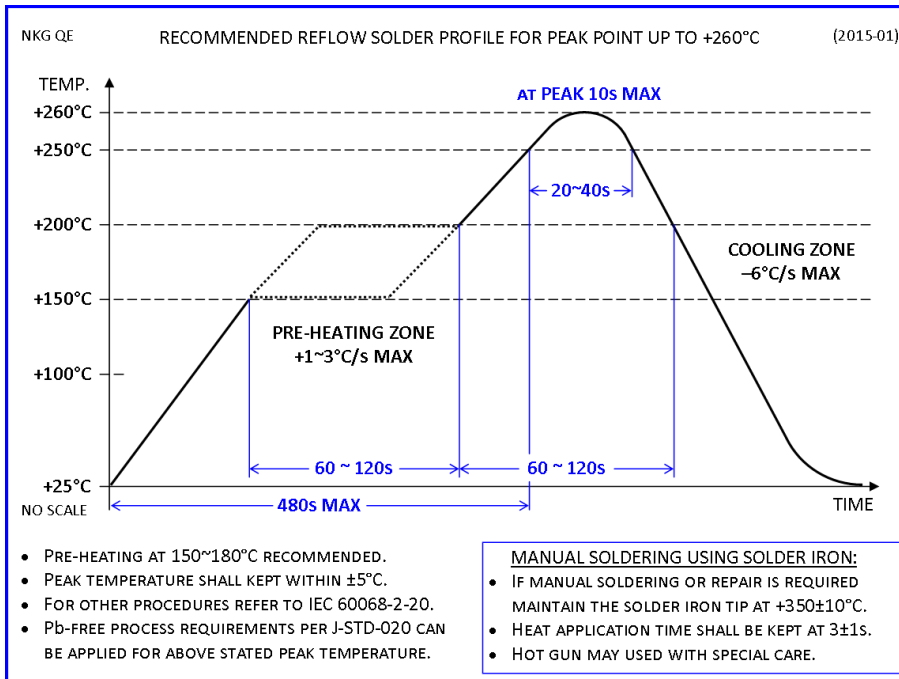
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ENVIRONMENTAL COMPLIANCE INFORMATION

- ROHS 6/6 COMPLIANT (DIRECTIVE 2011/65/EC) AND LEAD-FREE.
- COMPLIANT TO ROHS 2/ 3 (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.

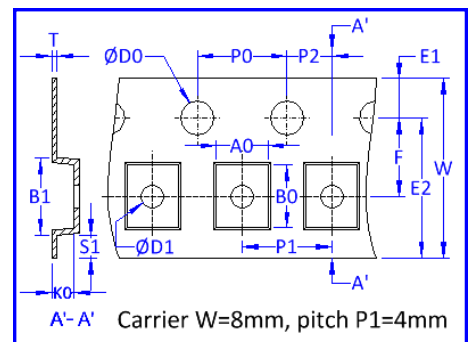


SOLDERING RECOMMENDATIONS



PACKAGING INFORMATION

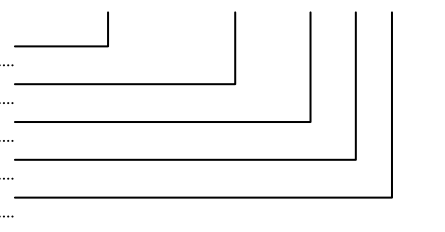
- PACKAGING IN TAPE & REEL IN COMPLIANCE TO EIA-481.
- QTY PER REEL: 5,000PCS
- REEL DIA A=180MM.
- EMBOSSED CARRIER TAPE WIDTH W = 8MM.
- COMPONENT PITCH P1 = 4MM.



PART NUMBER SYNTAX

- PART NUMBER FAMILY (REPRESENTS PRODUCT MODEL AND PACKAGE SIZE / TYPE)
- NOMINAL FREQUENCY (IN KHZ WITH AT LEAST THREE DIGITS AFTER DECIMAL POINT "k")
- LOAD CAPACITANCE (ACTUAL VALUE IN PF, I.E. 09= 9PF, 12.5= 12.5PF)
- FREQUENCY TOLERANCE DESIGNATOR (ACTUAL VALUE IN PPM OR CODE FOR SPECIAL REQ.)
- OPERATING TEMPERATURE RANGE CODE (I.E. E=-20~70°C, M=-40~85°C, N=-40~105°C)
- INTERNAL CODE FOR PRODUCTION LINE AND DEVIATING SPEC PARAMETERS

01-CR3-12-32k768-09-20M-CMC



FOR MORE INFORMATION PLEASE CONTACT US.

HONG KONG:
NAKAGAWA ELECTRONICS LIMITED
+852 2389 9201 sales@nkg.com.hk
+852 2341 0001 www.nkg.com.hk

China Shenzhen office:
深圳中川晶体电子有限公司
+86(0)755 2598 2648 sales_sz@nkg.cn
+86(0)755 2598 2390 www.nkg.com.hk

China Suzhou office:
苏州纳美电子有限公司
+86(0)512 8818 7890 sales_nm@nkg.cn
+86(0)512 8818 7889 www.nkg.com.hk