

TUNING FORK QUARTZ CRYSTAL UNIT IN CERAMIC SEAM SEAL SMD PACKAGE, SIZE 4.1 X 1.5MM.

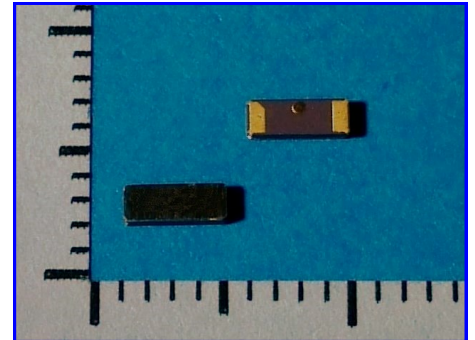
01-CR3-09

PRODUCT FEATURES

- SMALL SIZE PACKAGE SIZE 4.1 X 1.5 X 0.8MM WITH 2 PADS.
- EXCELLENT HEAT AND SHOCK RESISTANCE.
- HIGHLY RELIABLE AND LOW AGING SEAM SEAL PACKAGE.
- PERFECT FOR SMT AND LEAD-FREE REFLOW PROCESS.

APPLICATIONS

- REAL TIME CLOCKS
- PORTABLE DEVICES
- TIMING DEVICES

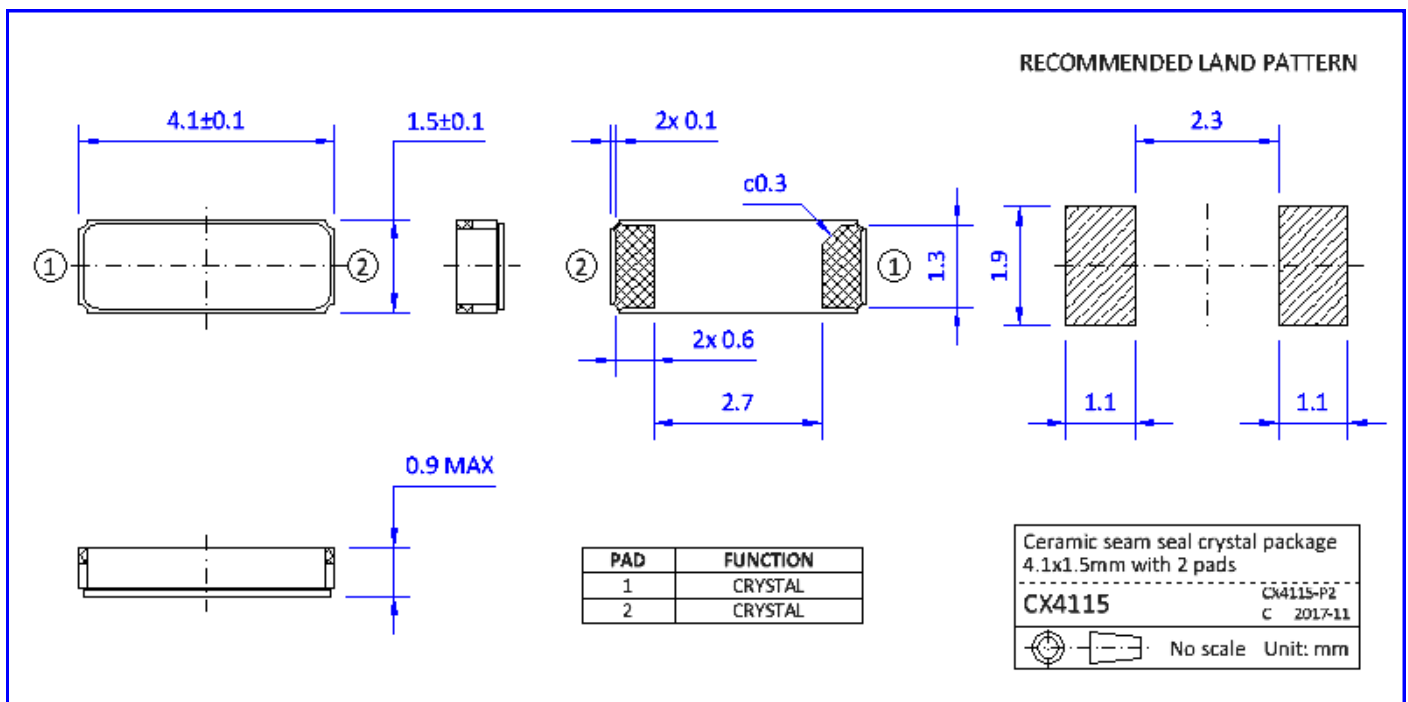


PRODUCT SPECIFICATIONS

PARAMETER	SYMBOL	SPECIFICATIONS	REMARKS
FREQUENCY	F_N	32.768kHz	—
OPERATION MODE	—	FUNDAMENTAL	—
FREQUENCY TOLERANCE	$\Delta f/f$	$\pm 10\text{PPM}, \pm 20\text{PPM}, \pm 30\text{PPM}, \pm 50\text{PPM}$	OTHER OPTIONS AVAILABLE
TEMPERATURE COEFFICIENT	K	$-0.034\text{PPM}/\Delta^\circ\text{C}^2$	SEE NOTE 1
TURNOVER POINT TEMPERATURE	T_{TP}	$+25\pm 5^\circ\text{C}$	SEE NOTE 2
OPERATING TEMPERATURE RANGE	T_{OP}	$-20^\circ\text{C} \sim +70^\circ\text{C}$ OR $-40^\circ\text{C} \sim +85^\circ\text{C}$	OTHER OPTIONS AVAILABLE
LOAD CAPACITANCE	CL	9pF or 12.5pF	PLEASE SPECIFY LOAD CAPACITANCE
SERIES RESONANCE RESISTANCE	R_S	60k Ω MAX	@+25 $^\circ\text{C}$
SHUNT CAPACITANCE	C_0	1.8pF TYP	—
DRIVE LEVEL	DL	1 μW MAX	—
AGING FIRST YEAR	$\Delta f/y_1$	$\pm 5\text{PPM}$	@+25 $^\circ\text{C}$
INSULATION RESISTANCE	IR	>500M Ω	@100 $\pm 15\text{V}_{DC}$
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

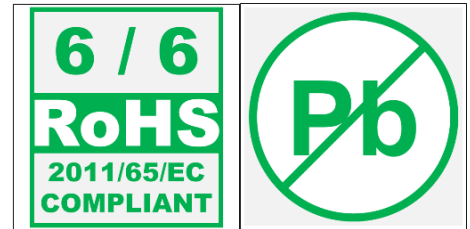


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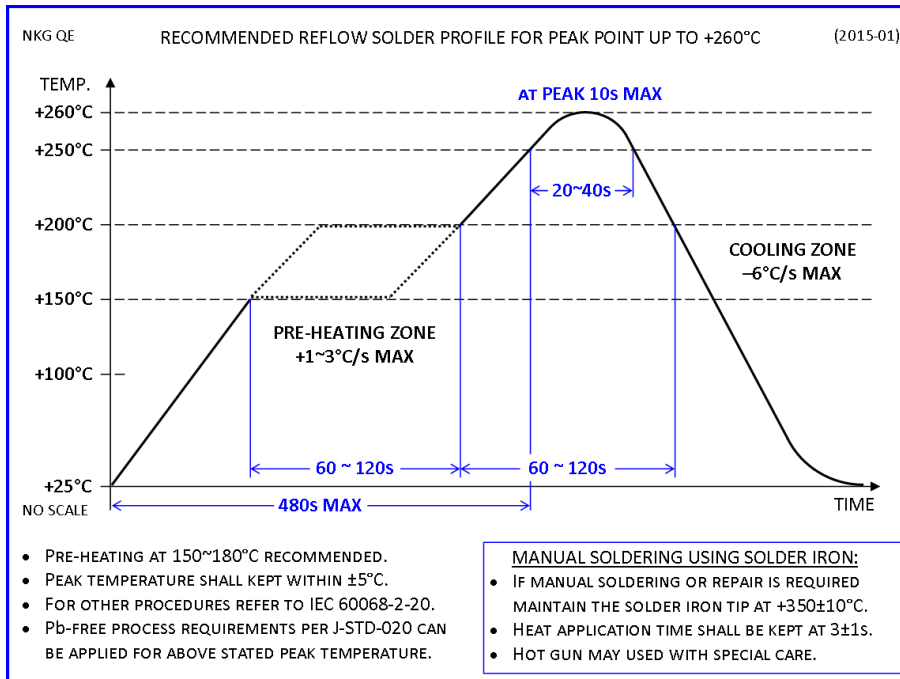
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ENVIRONMENTAL COMPLIANCE INFORMATION

- 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.

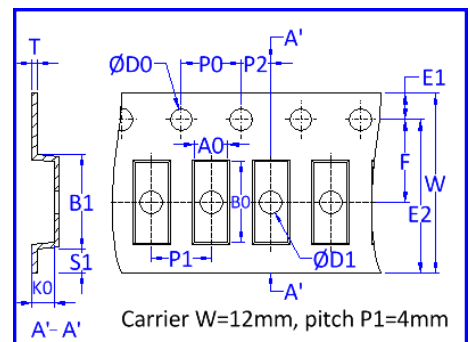


SOLDERING RECOMMENDATIONS



PACKAGING INFORMATION

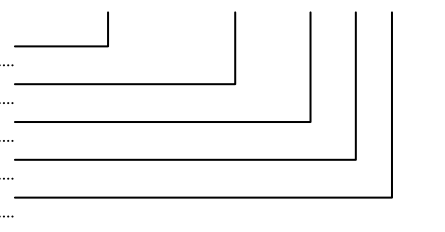
- PACKAGING IN TAPE & REEL IN COMPLIANCE TO EIA-481.
- QTY PER REEL: 3,000PCS
- REEL DIA A=180MM.
- EMBOSSED CARRIER TAPE WIDTH W = 12MM.
- COMPONENT PITCH P1 = 4MM.



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. C= -10~60°C, E= -20~70°C, M= -40~85°C)
- INTERNAL CODE FOR PRODUCTION LINE AND DEVIATING SPEC PARAMETERS

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



FOR MORE INFORMATION PLEASE CONTACT US.

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