

CERAMIC RESONATOR UNIT WITH INBUILT LOAD CAPACITORS IN RESIN THRU-HOLE PACKAGE, SIZE 10 X 5.5MM.

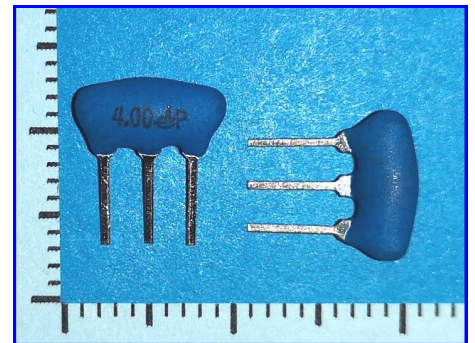
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PRODUCT FEATURES

- RESIN THRU-HOLE CASE IN SIZE 10 X 5.5 X 4MM WITH 3 LEADS.
- INBUILT LOAD CAPACITORS, CIRCUIT DOES NOT REQUIRE EXTERNAL CAPACITORS.
- INDUSTRIAL OPERATING TEMPERATURE RANGE -40 TO $+85^{\circ}\text{C}$ AVAILABLE.

APPLICATIONS

- MICROPROCESSOR
- REMOTE CONTROL DEVICES



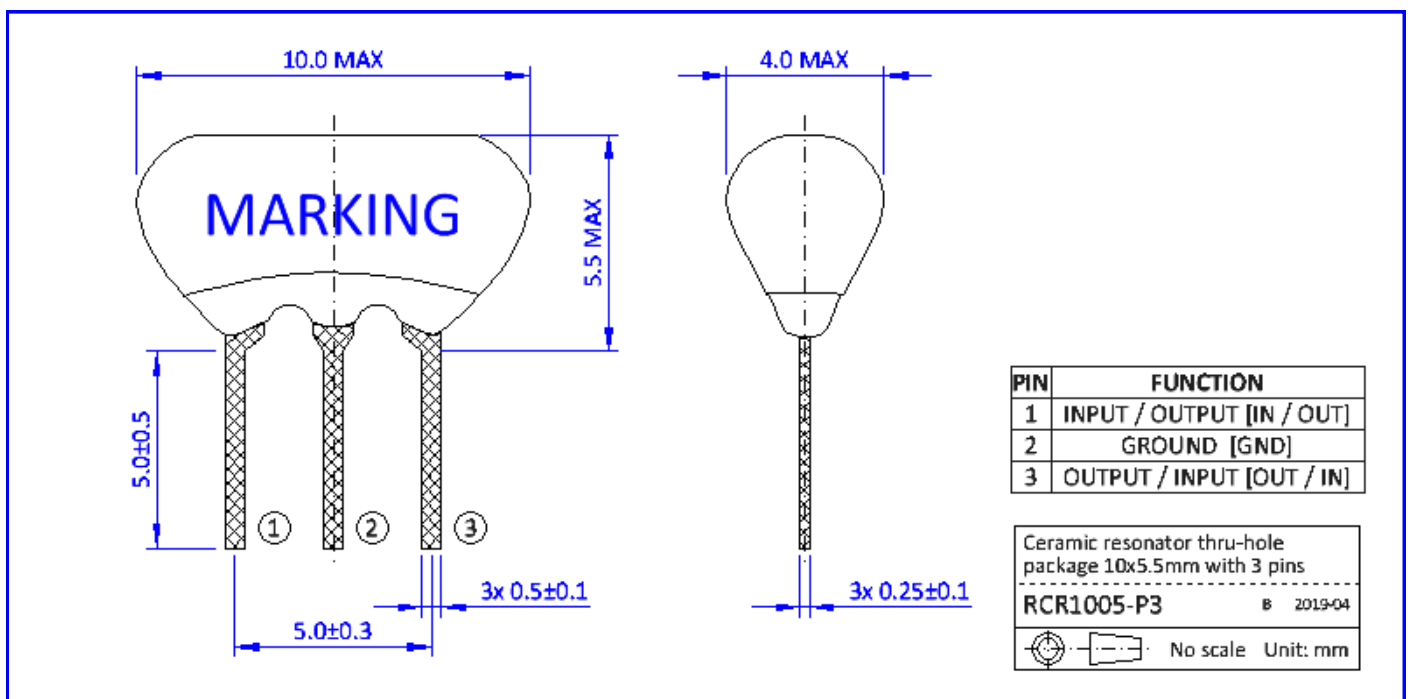
PRODUCT SPECIFICATIONS

| PARAMETER | SYMBOL | SPECIFICATIONS | REMARKS |
|--------------------------------|-------------------|--|------------------------------------|
| FREQUENCY RANGE | F_N | 1.79 ~ 6.0MHz | NOTE 1 |
| OSCILLATION MODE | — | THICKNESS SHEAR FUNDAMENTAL | — |
| FREQUENCY TOLERANCE | $\Delta f/F_N$ | $\pm 0.5\%$ OR $\pm 0.3\%$ | STANDARD / OPTION |
| STABILITY OVER OPERATING TEMP. | T_C | $\pm 0.3\%$ | DEPENDENT ON OPERATING TEMP. RANGE |
| OPERATING TEMPERATURE RANGE | T_{OP} | $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$ OR $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ | — |
| AGING RATE OVER 10 YEARS | $\Delta f/y_{10}$ | $\pm 0.3\%$ | @ $+25^{\circ}\text{C}$ |
| RESONANCE RESISTANCE | R_O | 80 Ω MAX 30 Ω MAX | 1.79 ~ 2.99MHz 3.00 ~ 6.00MHz |
| LOAD CAPACITORS (INBUILT) | C1 & C2 | 30pF (15, 33, 47pF) | NOTE 2 |
| RATED VOLTAGE | U_R | 6.0V _{DC} OR 15.0V _{PP} | MAXIMUM DC OR AC OPERATING VOLTAGE |
| WITHSTANDING VOLTAGE | U_W | 50.0V _{DC} | FOR 1 MINUTE MAXIMAL |

NOTE 1: TYPICAL FREQUENCIES: 2.0MHz, 3.58MHz, 3.64MHz, 3.68MHz, 3.84MHz, 4.0MHz, 4.19MHz, 4.91MHz, 5.0MHz, 6.0MHz.

NOTE 2: SHOWN IS THE RECOMMENDED CAPACITOR VALUE, THE VALUES IN BRACKETS ARE OPTIONAL AVAILABLE LOAD CAPACITOR VALUES (SETUP IN MANUFACTURING READY).

MECHANICAL DIMENSIONS



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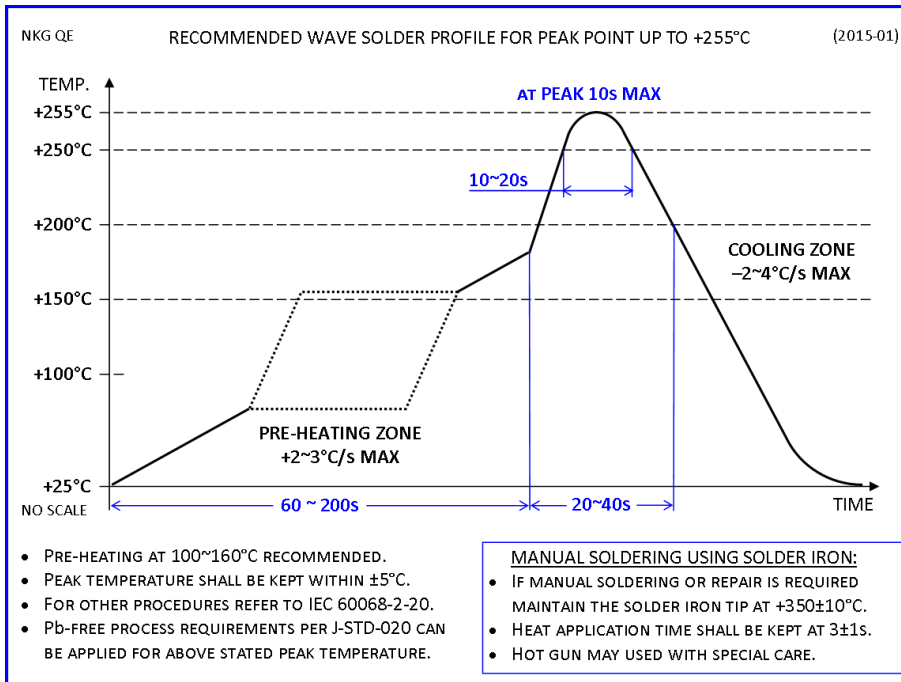
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ENVIRONMENTAL COMPLIANCE INFORMATION

- ROHS 5/6 COMPLIANT (DIRECTIVE 2011/65/EC).
- COMPLIANT TO ROHS 2 (DIRECTIVE 2015/863) (ALSO CALLED ROHS 10).
- HALOGEN-FREE PER DEFINITION OF IEC 61249-2-21 2033.
- COMPLIANCE TO THE LISTED SVHCs BY REACH IS NOT GIVEN ANYMORE SINCE LEAD AND LEAD COMPOUNDS HAD BEEN ADDED TO THE LIST OF SVHCs.
- 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.

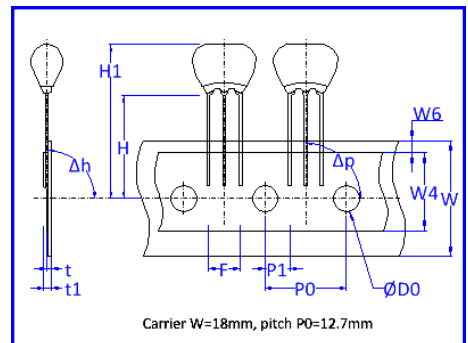


SOLDERING RECOMMENDATIONS



PACKAGING INFORMATION

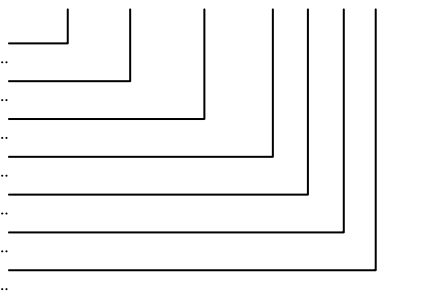
- BULK PACKAGING
- QTY PER BAG: 500PCS
- QTY PER BOX: 1,500PCS
- OPTIONAL PACKAGING ON TAPE & AMMO BOX, EIA-468 COMPLIANT
- QTY PER BOX: 2,000PCS
- CARRIER TAPE WIDTH W = 16MM
- PITCH P0 = 12.7MM



PART NUMBER SYNTAX

- PART NUMBER FAMILY (GROUP INDICATOR FOR CERAMIC RESONATOR WITH INBUILT LOAD CAPACITORS)
- PART NUMBER FAMILY (MODEL INDICATOR REPRESENTING PACKAGE TYPE AND SIZE)
- NOMINAL FREQUENCY (IN MHZ WITH AT LEAST TWO DIGITS AFTER DECIMAL POINT FOLLOWED BY "M")
- VIBRATION MODE CODE (G = THICKNESS SHEAR FUND, T = EXTENSION FUND, X = EXTENSION OVERT.)
- LOAD CAPACITOR VALUE (NUMERICAL VALUE OF INBUILT LOAD CAPACITORS C1 AND C2 IN pF)
- OPERATING TEMPERATURE RANGE CODE (NO CODE= -25~85°C, M= -40~85°C, Z = -40~125°C)
- FREQUENCY TOLERANCE CODE (OPTIONALLY USE FOR NONE-STANDARD TOLERANCE)
- PART NUMBER EXTENSION (ONLY FOR NONE-STANDARD OR OPTIONAL AMMO PACKAGING)

ZTTWS4.00MG30MT-EXT



FOR MORE INFORMATION PLEASE CONTACT US.

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