

CERAMIC RESONATOR UNIT WITH INBUILT LOAD CAPACITORS IN RESIN THRU-HOLE PACKAGE, SIZE 10 X 8MM.

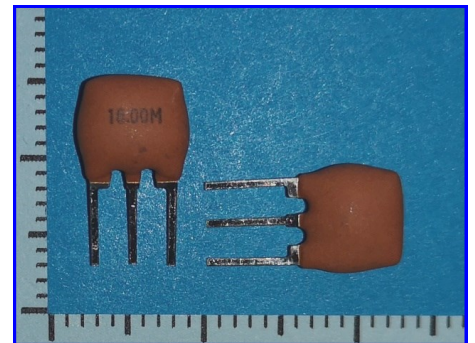
ZTTLS

PRODUCT FEATURES

- RESIN THRU-HOLE CASE IN SIZE 10 X 8 X 5MM 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



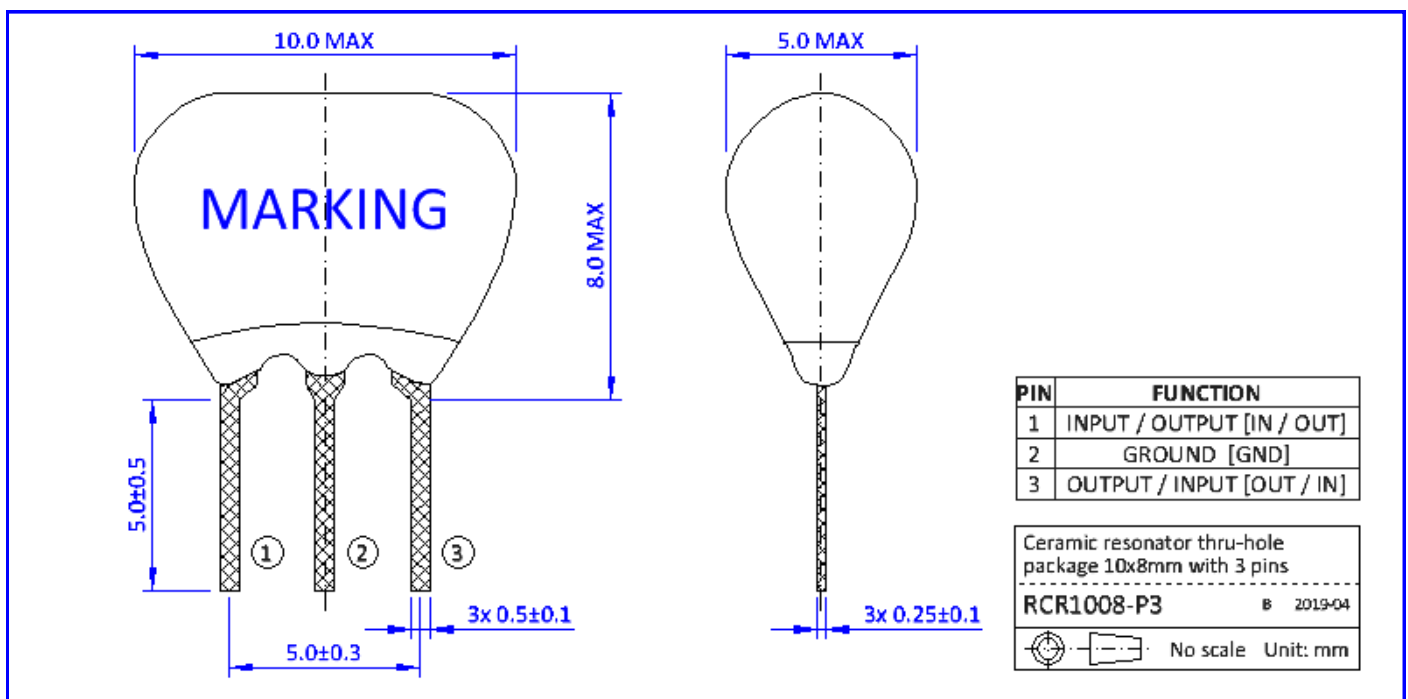
PRODUCT SPECIFICATIONS

PARAMETER	SYMBOL	SPECIFICATIONS	REMARKS
FREQUENCY RANGE	F_N	6.0 ~ 60.0MHz	NOTE 1
OSCILLATION MODE	—	EXTENSIONAL FUNDAMENTAL	ZTTLS_._MT — 8.0 ~ 13.0MHz
		EXTENSIONAL OVERTONE	ZTTLS_._MX — >12.0 ~ 60.0MHz
FREQUENCY TOLERANCE	$\Delta f/F_N$	$\pm 0.5\%$ OR $\pm 0.3\%$	STANDARD / OPTION
STABILITY OVER OPERATING TEMP.	T_C	$\pm 0.3\%$ OR $\pm 0.2\%$	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	25 Ω MAX	ZTTLS_._MT — 6 ~ 13MHz
		30 Ω MAX / 25 Ω MAX	ZTTLS_._MX — 12 ~ 20 / >20 MHz
LOAD CAPACITORS (INBUILT)	C1 & C2	22pF (30; 33; 47pF)	ZTTLS_._MT — 6.0 ~ 13.0MHz, NOTE 2
		33pF (22; 30pF)	ZTTLS_._MX — 12.0 ~ 20.0MHz
		15pF	ZTTLS_._MX — 20.1 ~ 25.9MHz
		5pF	ZTTLS_._MX — ≥ 26.0 MHz
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: 8MHz, 10MHz, 14.32MHz, 14.74MHz, 16MHz, 18.43MHz, 20MHz, 24MHz, 25MHz, 33.86MHz, 40MHz, 48MHz, 50MHz

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

MECHANICAL DIMENSIONS



CERAMIC RESONATOR UNIT WITH INBUILT LOAD CAPACITORS IN RESIN THRU-HOLE PACKAGE, SIZE 10 X 8MM.

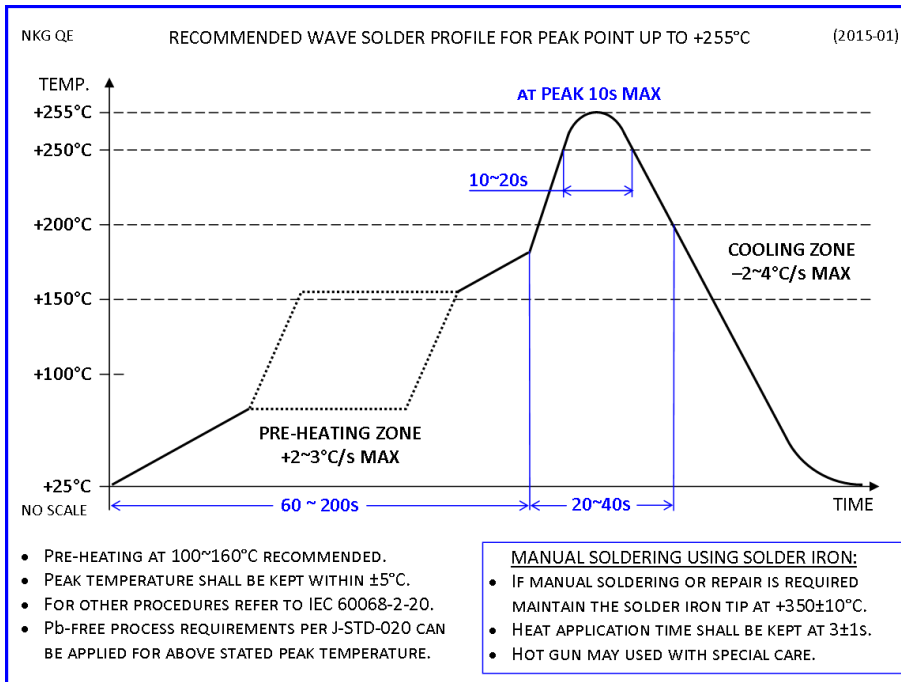
ZTTLS

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.

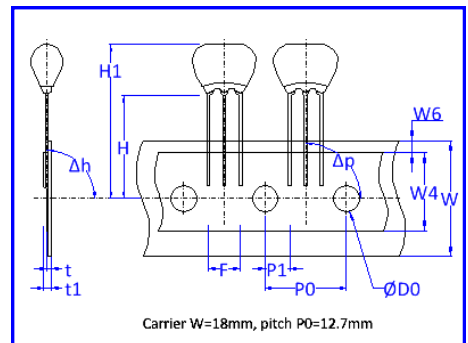


SOLDERING RECOMMENDATIONS



PACKAGING INFORMATION

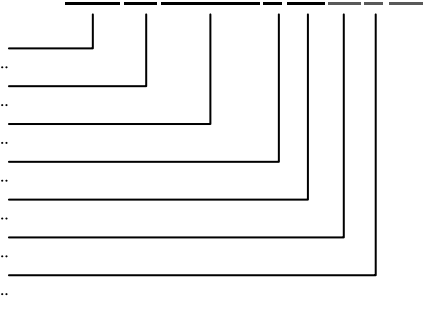
- BULK PACKAGING
- QTY PER BAG: 500PCS
- QTY PER BOX: 1,000PCS
- OPTIONAL PACKAGING ON TAPE & AMMO BOX, EIA-468 COMPLIANT
- QTY PER BOX: 2,000PCS
- CARRIER TAPE WIDTH W = 16MM
- PITCH P0 = 12.7MM



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)

ZTTLS 8.00MT 22MT -EXT



FOR MORE INFORMATION PLEASE CONTACT US.

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