

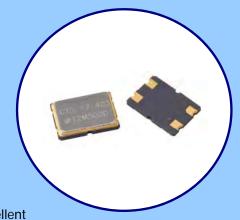
MODEL 407



SURFACE MOUNT QUARTZ CRYSTAL

FEATURES

- Standard 7.0mm x 5.0mm Ceramic Surface Mount Package
- Fundamental and 3rd Overtone Crystal Design
- Frequency Range 6 133MHz
- Frequency Tolerance, ±30ppm Standard
- Frequency Stability, ±50ppm Standard
- Operating Temperature to -40°C to +85°C
- Stable Frequency Over Temperature and Drive Level
- Tape & Reel Packaging Standard, EIA-481
- RoHS/Green Compliant [6/6]



APPLICATIONS

Model 407 is a seam sealed ceramic packaged quartz resonator offering excellent performance for a wide variety of applications including; wireless communications, broadband access, WLAN/WiMax/WIFI, test and measurement, portable equipment and computer peripherals.

ORDERING INFORMATION 407 🔲 🗎 🗎 🗎 🗎 M MODE OF OSCILLATION FREQUENCY IN MHz F = Fundamental M - indicates MHz and decimal point. T = 3rd Overtone FREQUENCY TOLERANCE @ +25°C LOAD CAPACITANCE K = 8pFD = 18pF $1 = \pm 10ppm$ $2 = \pm 20ppm$ E = 20pFJ = 9pF $X = \pm 15ppm$ $3 = \pm 30$ ppm A = 10pFF = 24pFL = 12pFG = 30pFC = 16pFS = SeriesTEMPERATURE STABILITY/TEMPERATURE RANGE -20°C to +70°C -30°C to +85°C $1 = \pm 10$ ppm $R = \pm 10ppm$ $W = \pm 15ppm$ $X = \pm 15ppm$ $Y = \pm 15ppm$ $6 = \pm 20ppm$ $2 = \pm 20ppm$ $N = \pm 20ppm$ $7 = \pm 30ppm$ $3 = \pm 30ppm$ $4 = \pm 30$ ppm $9 = \pm 50$ ppm $8 = \pm 50$ ppm $5 = \pm 50$ ppm 1. Frequency is recorded with 3 leading digits before the 'M' and 4 significant digits after the 'M' [including zeros]. [Ex. XXXMXXXX (016M3840), XXXMXXXX (022M1184)] 2] There are frequencies that have significant digits after the 'M' that exceed the 4 digits. The remaining digits will be truncated from the CTS part number, but the factory will calibrate to the full frequency desired. Ex. PN Frequency = Actual Frequency 13M5537 = 13.553750 MHz 14M3181 = 14.318180 MHz 16M6666 = 16.666670 MHz Not all performance combinations and frequencies may be available. Contact your local CTS Representative or CTS Customer Service for availability. PACKAGING INFORMATION [reference]

Device quantity is 1k pcs. maximun per 180mm reel.

4.0

8.0

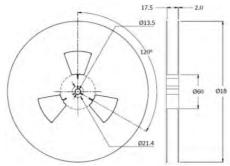
01.50

1.75

1.95

7.40

DIRECTION OF FEED



SHENZHEN YIJIN ELECTRONICS CO: LTD TEL: 0755-27876565

18924600166 QQ: 857950243 http://www.vc-tcxo.com

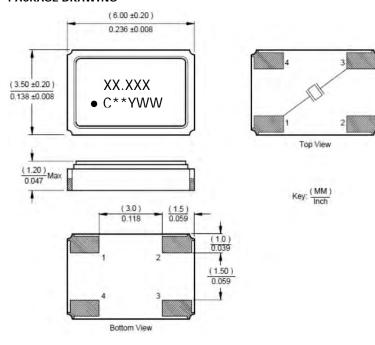


ELECTRICAL CHARACTERISTICS

	PARAMETER	VALUE	
ELECTRICAL PARAMETERS	Frequency Range	6MHz to 40MHz	35MHz to 133MHz
	Operating Mode	Fundamental	3rd Overtone
	Crystal Cut	AT-Cut	
	Frequency Tolerance @ +25°C	±30ppm, Standard	
	Frequency Stability Tolerance	±30ppm, Standard	
	[Operating Temperature Range, Referenced to +25°C Reading]		
	Operating Temperature Ranges	-20°C to +70°C	
		-30°C to +85°C	-40°C to +85°C
	Equivalent Series Resistance - Fundamental Mode [Maximum]	6MHz - <10MHz	80 Ohms
		10MHz - <14MHz	70 Ohms
		15MHz - <20MHz	50 Ohms
		20MHz - 40MHz	40 Ohms
	Equivalent Series Resistance - 3rd Overtone Mode [Maximum]	35MHz - <44MHz	80 Ohms
		44MHz - <50MHz	70 Ohms
		50MHz - <80MHz	60 Ohms
		80MHz - 133MHz	60 Ohms
	Load Capacitance	See Ordering Information	
	Shunt Capacitance [C ₀]	5.0pF Typical, 7.0pF Maximum	
	Drive Level	10µW Тур., 200µW Max.	
	Aging @ +25°C	±3ppm/yr Typical	
	Insulation Resistance	500M Ohms @ DC 100V	
	Storage Temperature Range	-40°C to	+100°C

MECHANICAL SPECIFICATIONS

PACKAGE DRAWING



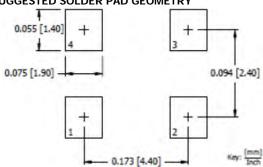
MARKING INFORMATION

- XX.XXX Frequency marked with 3 significant digits after the decimal.
- C CTS identifier.
- 3. ** Manufacturing Site code.
- 4. YWW Date Code, Y Last Digit of Year, WW Week.

NOTES

- Complete CTS part number, frequency value and date code information must appear on reel and carton labels.
- 2. Terminations #2, $\dot{\#}\dot{4}$ and metal lid are connected internally and may be connected to ground for EMI suppression.
- Termination pads (e4); barrier plating is nickel Ni] with gold [Au] flash plate.
- Reflow conditions per JEDEC J-STD-020; +260°C maximum, 10 seconds.
- 5. MSL = 1.

SUGGESTED SOLDER PAD GEOMETRY



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