

Features

- Frequency range : 19.2MHz to 54MHz
- SMD seam sealing ceramic package
- Crystal with thermally coupled temperature sensor (Thermistor)
- External dimensions (mm)
L : 2.0 x W : 1.6 x H : 0.8
- RoHS compliant & Pb free

Applications

- Mobile communications
- WiFi, Bluetooth
- GPS
- Mobile phone, Tablet, Wearables

Electrical Characteristics

Item		QT216T	Conditions
Frequency Range	F_0	19.2MHz ~ 54MHz	
Frequency Tolerance	F_{tol}	±10 ppm	at 25°C
Frequency Stability over Operating Temperature Range	F_{stab}	±10 ppm	refer to 25°C
Operating Temperature Range	T_{OTR}	-30°C ~ +85°C	
Shunt Capacitance	C_0	3 pF Max.	
Drive Level	D_L	1μW ~ 200μW (50μW Typ.)	
Load Capacitance	C_L	6pF, 7pF, 8pF	
Aging	F_{aging}	±1 ppm Max.	at 25°C, first year
Storage Temperature Range	T_{STR}	-40°C ~ +105°C	

NTC Thermistor

Resistance	-	100 KΩ ± 1%	at 25°C; Note [1]
B-constant	-	4250 K ± 1%	25°C~+50°C; Note [1]

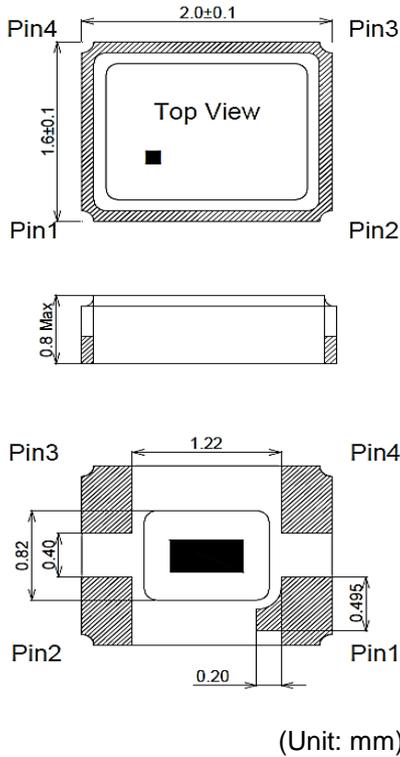
Notes:

[1] Please contact us for other specifications.

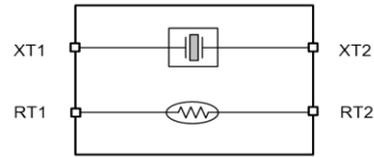
Motional Resistance (ESR)

Fundamental			
19.2 ~ 30	MHz	100Ω	Max.
30 ~ 54	MHz	80Ω	Max.

Dimensions



Block diagram and Pin function

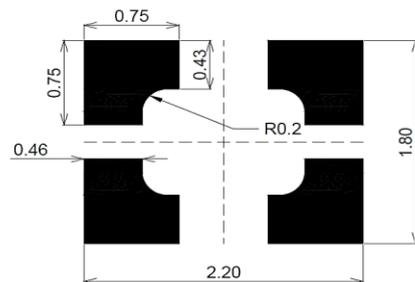


	Symbol	Function
Pin 1	XT1	XTAL Terminal 1
Pin 2	RT2	Thermistor Terminal 2
Pin 3	XT2	XTAL Terminal 2
Pin 4	RT1	Thermistor Terminal 1

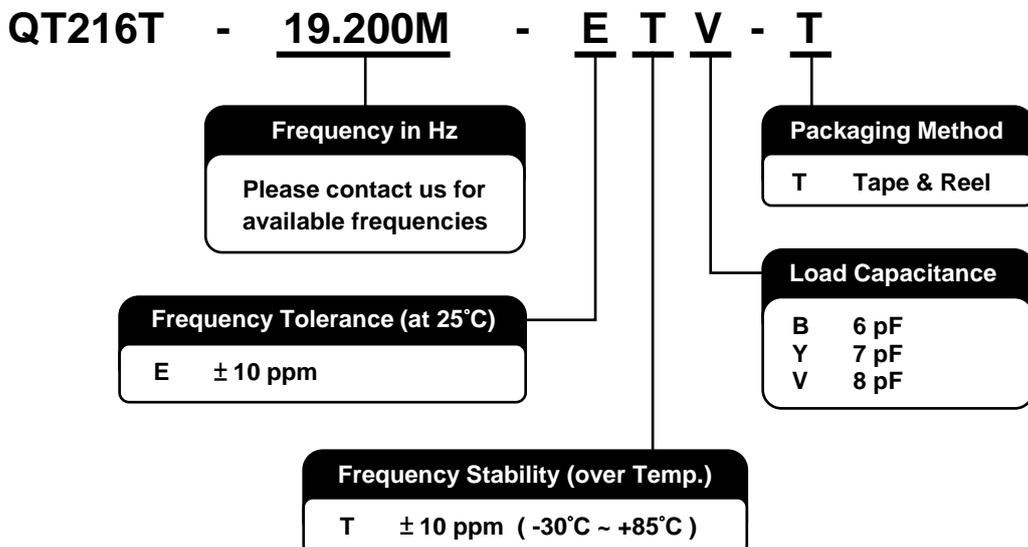
Note:

- (a) Pin 2 is connected to the metal lid and thermistor
- (b) Pin 4 is connected to the thermistor only
- (c) RT2 is recommended to GND

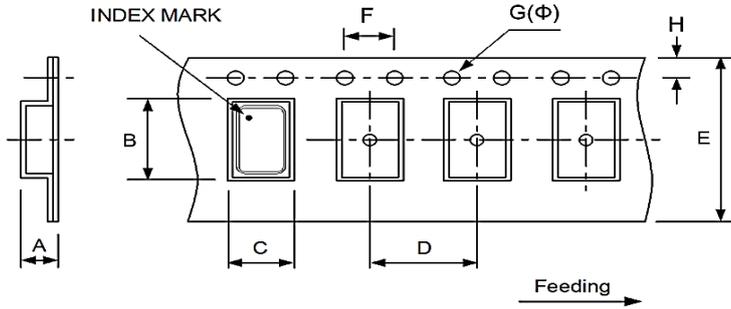
Recommended pad layout



Ordering Information

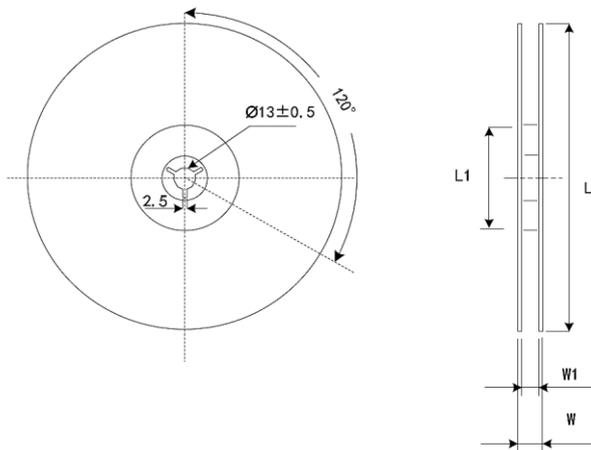


Packing



DIMENSIONS	A	B	C	D	E	F	G	H
	0.90 ±0.10	2.30 ±0.10	1.90 ±0.10	4.00 ±0.10	8.00 ±0.20	4.00 ±0.10	1.55 ±0.05	1.75 ±0.10

(Unit: mm)



DIMENSIONS	L	L1	W	W1
	178 ±1.00	60.2 ±0.50	11.5 ±0.2	8 +1/-0

(Unit: mm)

Reflow Profile

Solder melting point : 220°C ± 10°C, 60 sec. Min.

Peak temperature : 260°C ± 10°C, 10 sec. Min.

