

Features

- Frequency range : 10MHz to 52MHz
- SMD seam sealing ceramic package
- Supply voltage : 1.8V & 3.3V
- Clipped Sinewave output
- Low power consumption
- Voltage control function available
- External dimensions (mm)
L : 3.2 x W : 2.5 x H : 1.0
- RoHS compliant & Pb free

Applications

- Mobile communications
- GNSS
- Smartphone, Mobile phone
- Wearables
- IoT devices
- Portable radio communications

Electrical Characteristics

Item		QTT325	Conditions
Nominal Frequency Range (F_0)		10MHz ~ 52MHz	
Frequency Tolerance (F_{tol})		± 2.0 ppm Max.	Note [1]
Frequency Stability	vs Temperature	± 0.5 ppm, ± 2.0 ppm	Note [2]
	vs Load	± 0.2 ppm Max.	Load $\pm 10\%$
	vs Supply Voltage	± 0.2 ppm Max.	$V_{DD} \pm 5\%$
Operating Temperature Range (T_{OTR})		$-30^\circ\text{C} \sim +85^\circ\text{C}$	
Supply Voltage (V_{DD})		1.8V, 3.3V	
Current Consumption (I_{DD})		2.0 mA Max.	
Output Type		Clipped Sinewave	
Output Load		10k Ω // 10pF	
Output Level		0.8 V(p-p) Min.	Note [3]
Start-up Time		5 ms Max.	
Auto Frequency Control (AFC) Range		± 7 ppm ~ ± 16 ppm	VCTCXO, optional, Note [4]
Phase Noise		-135 dBc/Hz Typ.	at 1kHz offset
Aging (F_{aging})		± 1 ppm Max.	at 25°C , first year
Storage Temperature Range (T_{STR})		$-55^\circ\text{C} \sim +125^\circ\text{C}$	

Notes:

[1] Refer to nominal frequency after 2 times of reflow at 25°C .

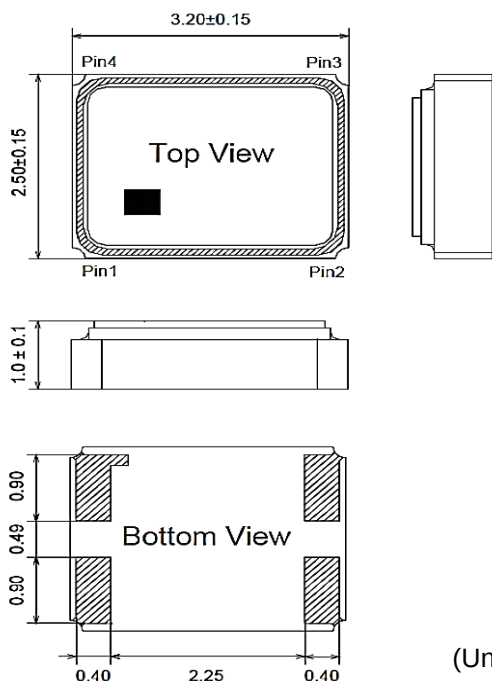
[2] Refer to frequency at $25^\circ\text{C} \pm 2^\circ\text{C}$.

[3] Decoupling capacitor is required in external circuit.

[4] If supply voltage $V_{DD} = 3.3\text{V}$, control voltage $V_{con} = 0.5 \cdot V_{DD} \pm 1.0\text{V}$.

If supply voltage $V_{DD} = 1.8\text{V}$, control voltage $V_{con} = 0.5 \cdot V_{DD} \pm 0.8\text{V}$.

Dimensions

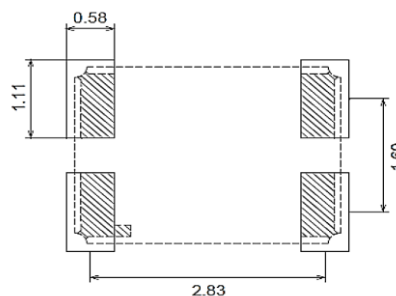


(Unit: mm)

Pin function

Pin	Function	
	TCXO	VCTCXO
1	GND or NC	AFC
2	GND	
3	OUTPUT	
4	V _{DD}	

Recommended pad layout



Ordering Information

QTT325 - 26.000M B G - T

Frequency in Hz

Please contact us for available frequencies

Supply Voltage

B 3.3 V
D 1.8 V

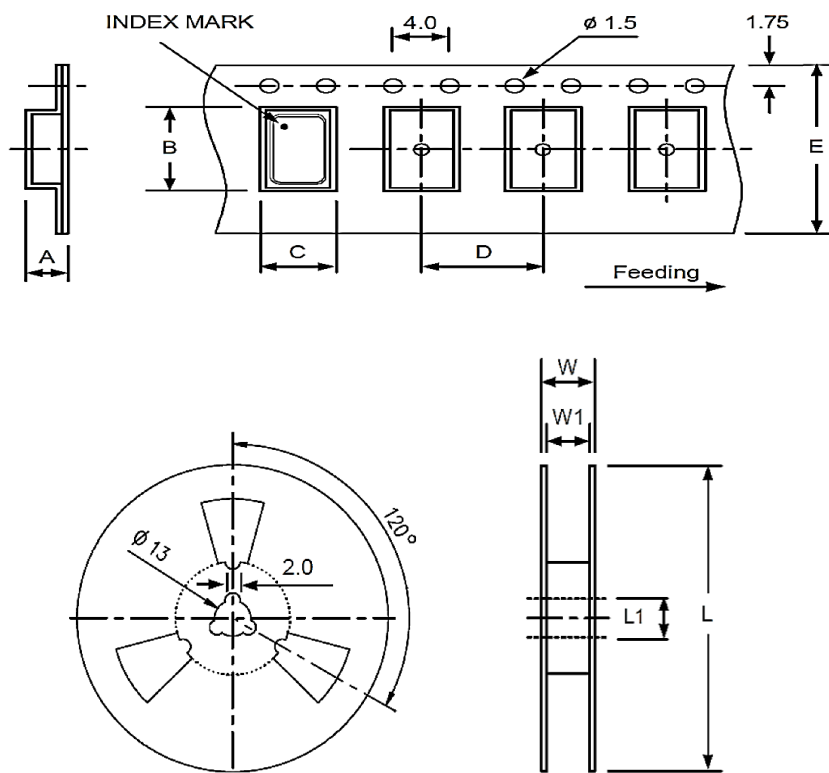
Packaging Method

T Tape & Reel

Frequency Stability (over Temp.)

N ±2.0 ppm (-30°C ~ +85°C), TCXO
S ±2.0 ppm (-30°C ~ +85°C), VCTCXO
G ±0.5 ppm (-30°C ~ +85°C), TCXO
V ±0.5 ppm (-30°C ~ +85°C), VCTCXO

Packing



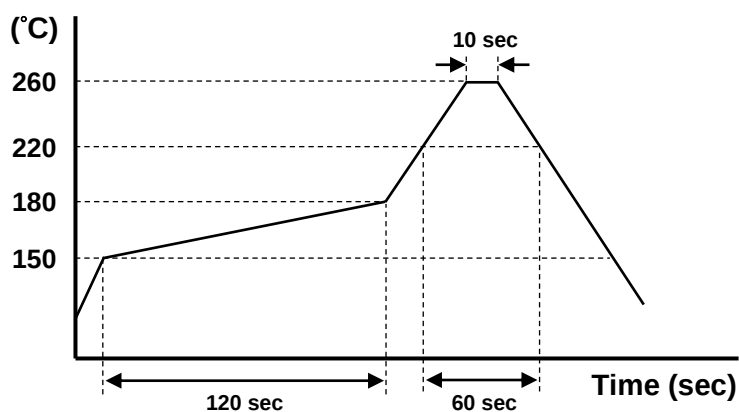
DIMENSIONS	A	B	C	D	E	L	L1	W	W1
	1.40	3.40	2.70	4.00	8.0	178.0	13.0	11.5	8.0

(Unit: mm)

Reflow Profile

Solder melting point : 220°C, 60 sec. Min., 200 sec. Max.

Peak temperature : 260°C, 10 sec. Min., 30 sec. Max.



Mouser Electronics

Authorized Distributor

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[QTT325-16.368MBN-T](#) [QTT325-26.000MBS-T](#) [QTT325-16.367667MBN-T](#) [QTT325-16.3676MBG-T](#) [QTT325-24.000MDN-T](#)