

Features

- Frequency range : 12MHz to 66MHz
- Ceramic SMD package
- Seam sealing
- External dimensions (mm)
L : 2.5 x W : 2.0 x H : 0.55
- RoHS compliant & Pb free

Applications

- Bluetooth, Wireless LAN
- Microprocessor
- Mobile phone, Computer, Modem
- Audio, Video
- Consumer products

Electrical Characteristics

Item		QT252S	Conditions
Frequency Range	F_0	12MHz ~ 66MHz	
Frequency Tolerance	F_{tol}	$\pm 30\text{ppm}$, $\pm 20\text{ppm}$, $\pm 10\text{ppm}$	at 25°C
Frequency Stability over Operating Temperature Range (refer to 25°C)	F_{stab}	$\pm 30\text{ ppm}$	-20°C ~ +70°C
		$\pm 20\text{ ppm}$	
		$\pm 10\text{ ppm}$	
		$\pm 10\text{ ppm}$	-30°C ~ +85°C
		$\pm 30\text{ ppm}$	-40°C ~ +85°C
		$\pm 20\text{ ppm}$	
Operating Temperature Range	T_{OTR}	-20°C ~ +70°C	
		-40°C ~ +85°C	
		-40°C ~ +125°C	
Shunt Capacitance	C_0	3pF Max.	
Drive Level	D_L	1 ~ 200 μ W (100 μ W Typ.)	
Load Capacitance	C_L	6pF, 8pF, 10pF, 12pF, 18pF	
Aging (at 25°C \pm 3°C, first year)	F_{aging}	$\pm 3\text{ppm Max.}$	Note [1]
		$\pm 1\text{ppm Max.}$	
Storage Temperature Range	T_{STR}	-55°C ~ +125°C	

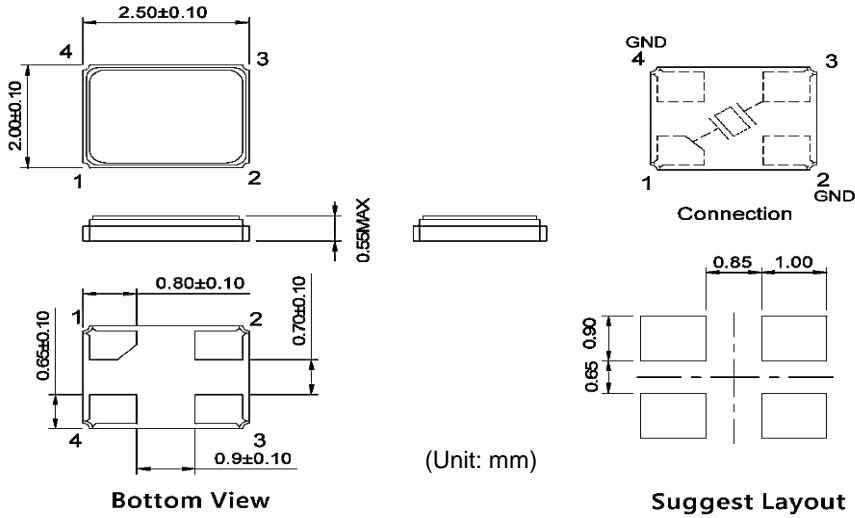
Notes:

[1] Aging +/-1ppm maximum for $F_{tol} \pm 10\text{ppm}$ & $F_{stab} \pm 10\text{ppm}$ grade crystals.

Motional Resistance (ESR)

Fundamental	
12 ~ 13 MHz	150 Ω Max.
14 ~ 30 MHz	100 Ω Max.
30 ~ 66 MHz	60 Ω Max.

Dimensions

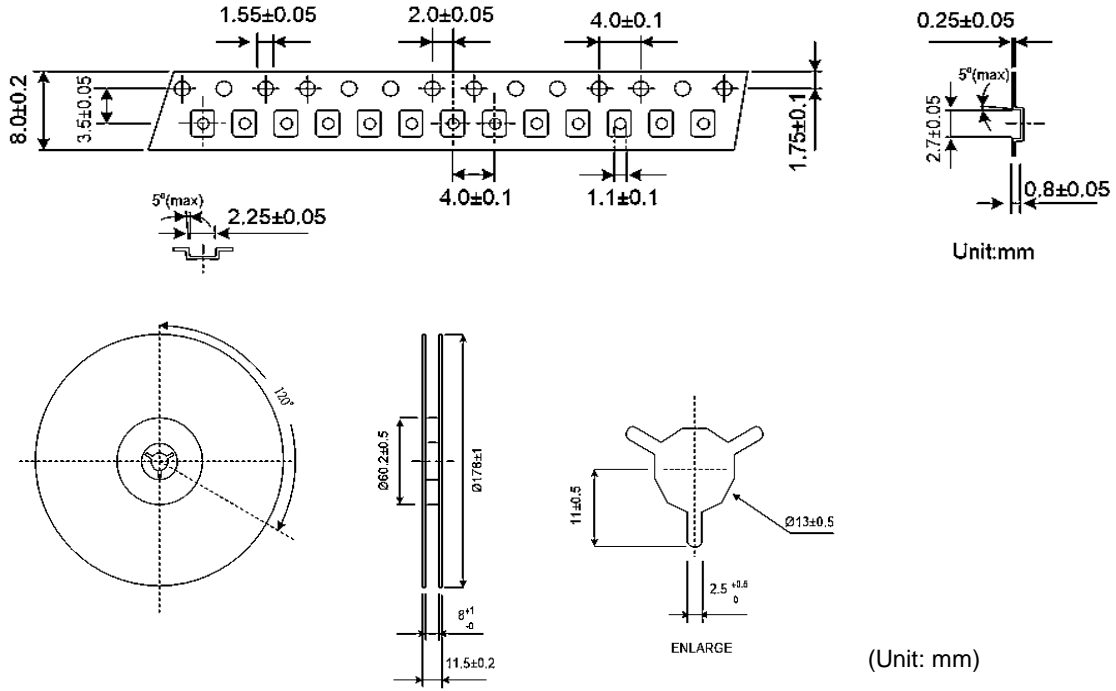


Ordering Information

QT252S - 24.000M - A H E - T

<p>Frequency in Hz</p> <p>Please contact us for available frequencies</p>	<p>Frequency Tolerance (at 25°C)</p> <p>A ± 30 ppm D ± 20 ppm E ± 10 ppm</p>	<p>Frequency Stability (over Temp.)</p> <p>A ± 30 ppm (-20°C ~ +70°C) D ± 20 ppm (-20°C ~ +70°C) E ± 10 ppm (-20°C ~ +70°C) T ± 10 ppm (-30°C ~ +85°C) H ± 30 ppm (-40°C ~ +85°C) I ± 20 ppm (-40°C ~ +85°C) K ± 60 ppm (-40°C ~ +125°C)</p>	<p>Packaging Method</p> <p>T Tape & Reel</p>	<p>Load Capacitance</p> <p>B 6 pF V 8 pF Q 10 pF E 12 pF J 18 pF</p>
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Packing



(Unit: mm)

Reflow Profile

Solder melting point : $220^\circ\text{C} \pm 10^\circ\text{C}$, 60 sec. Min.

Peak temperature : $260^\circ\text{C} \pm 10^\circ\text{C}$, 10 sec. Min.

