

Features

- Frequency range : 1MHz to 40MHz
- SMD seam sealing ceramic package
- Supply voltage : 1.8V ~ 3.3V
- CMOS output
- Phase modulation clock function selectable for EMI reduction
- External dimensions (mm)
L : 2.5 x W : 2.0 x H : 0.8
- RoHS compliant & Pb free

Applications

- Imaging & Display Devices
- HD Camera, DVR
- HD Surveillance Camera
- Computer Peripherals
- Consumer products

Electrical Characteristics

Item		QTM252E	Conditions
Frequency Range (F_0)		1MHz ~ 40MHz	
Frequency Stability (F_{stab})		±50 ppm	Note [1] & [2]
Operating Temperature Range (T_{OTR})		-40°C ~ +85°C	
		-40°C ~ +105°C	
		-40°C ~ +125°C	
Supply Voltage (V_{DD})		1.8V, 2.5V, 3.3V	$V_{DD} \pm 5\%$
Current Consumption (I_{DD})		10 mA Max.	
Output Type		CMOS	
Output Load (C_L)		15 pF	
Output Voltage High (V_{OH})		80% V_{DD} Min.	
Output Voltage Low (V_{OL})		20% V_{DD} Max.	
Rise & Fall Time (T_r / T_f)		8 ns Max.	20% ~ 80% of V_{DD}
Duty Cycle		45% ~ 55%	
Start-up Time		1 ms Max.	
Phase Jitter, RMS		1 ps Max.	Note [2] Integrated 12kHz~5MHz.
Phase Modulation Clock Mode	Enable	30% V_{DD} Max. (Logic "0")	Input to Pin1; Note [3]
	Disable	70% V_{DD} Min. (Logic "1")	
Aging (F_{aging})		±3 ppm Max.	at 25°C±3°C, first year
Storage Temperature Range (T_{STR})		-55°C ~ +125°C	

Notes:

- [1] Inclusive of frequency tolerance at 25°C, variations over operating temperature, supply voltage, load and 1st year aging at 25°C.
- [2] Phase modulation clock mode is disabled.
- [3] Phase modulation clock mode will be enabled if Pin1 is Logic "0"; Phase modulation clock mode will be disabled if Pin1 is Logic "1" or open (Internal pull-high resistor).

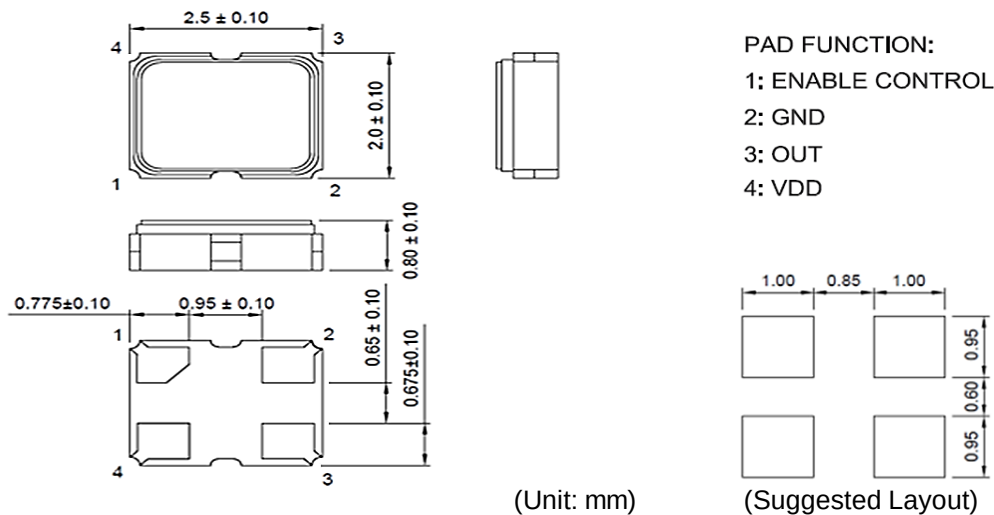
Phase Modulation Mode Deviation [4]

Frequency (MHz)	Deviation range (%)		
	V _{DD} 1.8V	V _{DD} 2.5V	V _{DD} 3.3V
20	± 0.54	± 0.36	± 0.29
24	± 0.62	± 0.42	± 0.34
25	± 0.65	± 0.45	± 0.35
27	± 0.70	± 0.54	± 0.40

Notes:

[4] Contact us for available frequencies and deviation range.

Dimensions



Ordering Information

QTM252E - 27.000M B E - T

Frequency in Hz

Please contact us for available frequencies

Supply Voltage

B 3.3 V
C 2.5 V
D 1.8 V

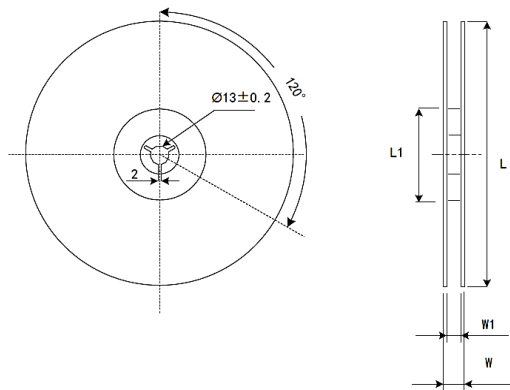
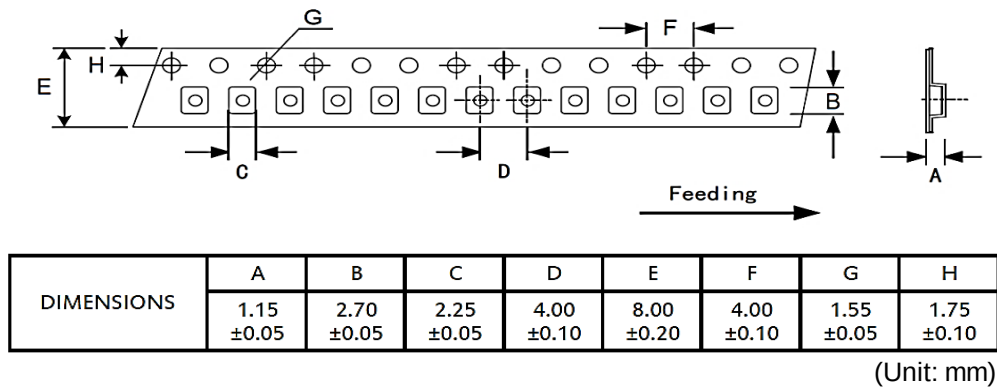
Packaging Method

T Tape & Reel

Frequency Stability

E ± 50 ppm (-40°C ~ +85°C)
J ± 50 ppm (-40°C ~ +105°C)
M ± 50 ppm (-40°C ~ +125°C)

Packing



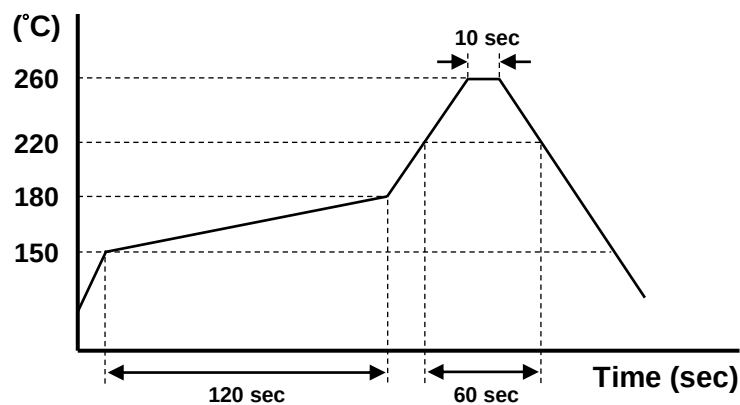
DIMENSIONS	L	L1	W	W1
	180 0/-3	60 +1/0	11.4 ±0.1	9 ±0.3

(Unit: mm)

Reflow Profile

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

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



Mouser Electronics

Authorized Distributor

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