

Features

- Frequency range : 1MHz to 170MHz
- SMD seam sealing ceramic package
- Supply voltage : 1.8V ~ 3.3V
- CMOS output
- Tri-state function available
- External dimensions (mm)
L : 5.0 x W : 3.2 x H : 1.2
- RoHS compliant & Pb free

Applications

- Networking, Server, Storage
- Wireless communications
- Fibre channel, Ethernet, SATA, SAS, PCI-E, USB, WLAN, xDSL, xPON
- PC mainboard, Notebook, HDD, SSD, Graphics card, Computer peripherals
- Audio, Video, Gaming, Printer, DSC, IP CAM, Consumer products

Electrical Characteristics

Item	QTM532	Conditions
Frequency Range (F_0)	1MHz ~ 170MHz	
Frequency Stability (F_{stab})	± 50 , ± 25 ppm	-10°C ~ +70°C; Note [1]
	± 50 , ± 30 , ± 25 , ± 15 ppm	-40°C ~ +85°C; Note [1]
Operating Temperature Range (T_{OTR})	-10°C ~ +70°C	
	-40°C ~ +85°C	
Supply Voltage (V_{DD})	1.8V, 2.5V, 2.8V, 3.3V	$V_{DD} \pm 10\%$
Current Consumption (I_{DD})	10 mA Max.	1MHz ~ 75MHz
	20 mA Max.	75MHz ~ 170MHz
Output Type	CMOS	
Output Load (C_L)	15 pF	
Output Voltage High (V_{OH})	90% V_{DD} Min.	
Output Voltage Low (V_{OL})	10% V_{DD} Max.	
Rise & Fall Time (T_r / T_f)	8 ns Max.	10% ~ 90% of V_{DD}
Duty Cycle	40% ~ 60%	
Start-up Time	5 ms Max.	
Enable Voltage High, Logic "1"	70% V_{DD} Min.	Input to Pin1 Note [2]
Enable Voltage Low, Logic "0"	30% V_{DD} Max.	
Phase Jitter, RMS	1 ps Max.	Note [3]
Aging (F_{aging})	± 3 ppm Max.	at 25°C \pm 3°C, first year
Storage Temperature Range (T_{STR})	-55°C ~ +125°C	

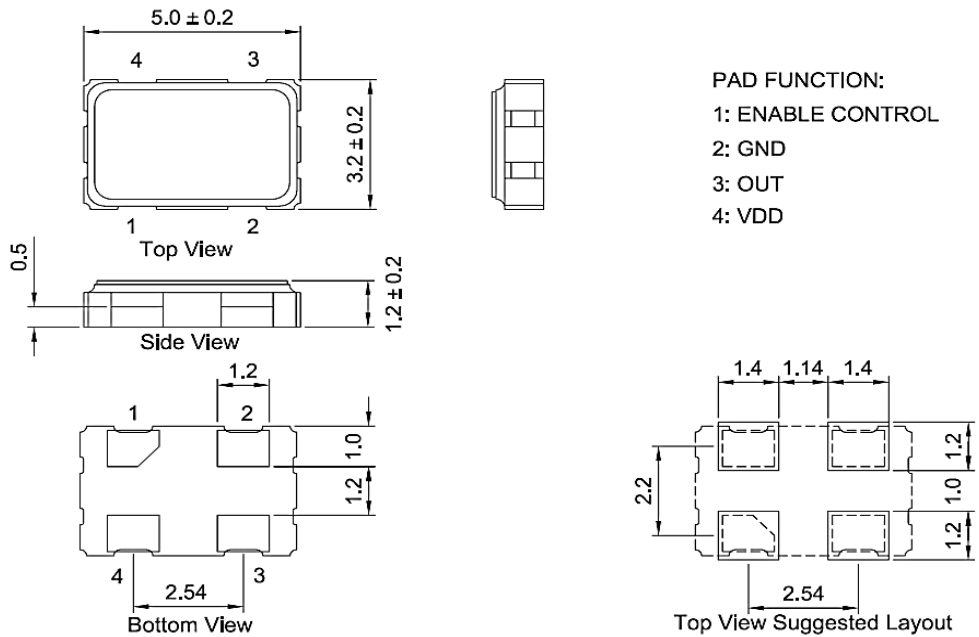
Notes:

[1] Inclusive of frequency tolerance at 25°C, 1st year aging at 25°C, and variations over operating temperature, supply voltage, and load.

[2] Output will be enabled if Pin1 is Logic "1" or open; Output will be disabled if Pin1 is Logic "0".

[3] Freq. 10MHz~40MHz, integrated 12kHz~5MHz; Freq. >40MHz, integrated 12kHz~20MHz.

Dimensions



PAD FUNCTION:
 1: ENABLE CONTROL
 2: GND
 3: OUT
 4: VDD

(Unit: mm)

Ordering Information

QTM532 - 30.000M B E - T

Frequency in Hz
 Please contact us for available frequencies

Packaging Method
 T Tape & Reel

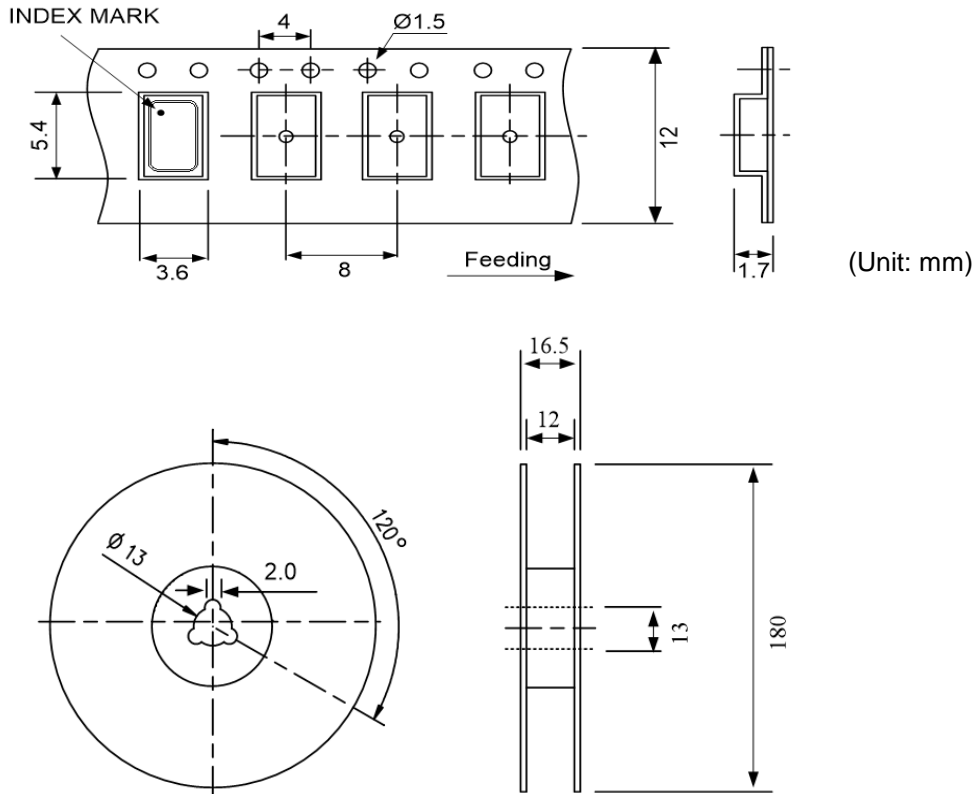
Supply Voltage

B	3.3 V
E	2.8 V
C	2.5 V
D	1.8 V

Frequency Stability

B	± 50 ppm (-10°C ~ +70°C)
A	± 25 ppm (-10°C ~ +70°C)
E	± 50 ppm (-40°C ~ +85°C)
G	± 30 ppm (-40°C ~ +85°C)
D	± 25 ppm (-40°C ~ +85°C)
H	± 15 ppm (-40°C ~ +85°C)

Packing



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.

