

QTM532 MHz CMOS Oscillator

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

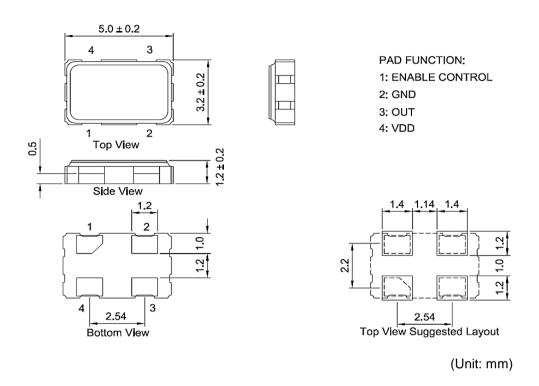
Item	QTM532	Conditions
Frequency Range (F ₀)	1MHz ~ 170MHz	
Frequency Stability (F _{stab})	±50 , ±25 ppm	-10°C ~ +70°C; Note [1]
	±50 , ±30 , ±25 , ±15 ppm	-40°C ~ +85°C; Note [1]
Operating Temperature Range (T _{OTR})	-10°C ~ +70°C -40°C ~ +85°C	
Supply Voltage (V _{DD})	1.8V, 2.5V, 2.8V, 3.3V	V _{DD} ± 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
Enable Voltage Low, Logic "0"	30% V _{DD} Max.	Note [2]
Phase Jitter, RMS	1 ps Max.	Note [3]
Aging (F _{aging})	±3 ppm Max.	at 25°C±3°C, first year
Storage Temperature Range (T _{STR})	-55°C ~ +125°C	

Notes:

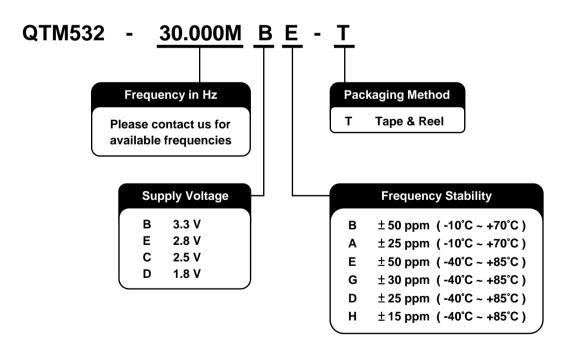
- [1] Inclusive of frequency tolerance at 25°C, 1st year aging at 25°C, and variations over operating temperature, supply voltage, and load.
- [2] Output will be enabled if Pin1 is Logic "1" or open; Output will be disabled if Pin1 is Logic "0".
- [3] Freq. 10MHz~40MHz, integrated 12kHz~5MHz; Freq. >40MHz, integrated 12kHz~20MHz.



Dimensions

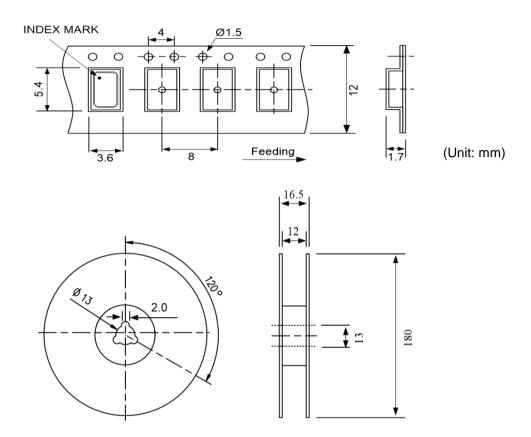


Ordering Information



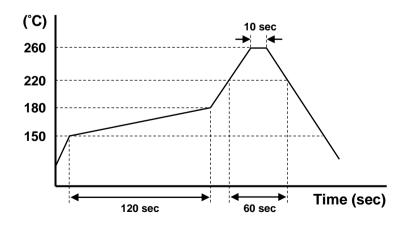


Packing



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.



Mouser Electronics

Authorized Distributor

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TXC Corporation:

QTM532-6.000MBB-T QTM532-100.000MBE-T QTM532-100.000MDE-T QTM532-125.000MBE-T QTM532-133.000MBE-T QTM532-25.000MBE-T QTM532-25.000MDE-T QTM532-27.000MBE-T QTM532-27.000MDA-T QTM532-27.000MDE-T QTM532-33.333MBE-T QTM532-40.000MDE-T QTM532-40.000MEH-T QTM532-48.000MBE-T QTM532-50.000MBE-T QTM532-62.500MBE-T QTM532-62.500MDE-T QTM532-75.000MBE-T QTM532-12.000MBB-T QTM532-125.000MDE-T QTM532-133.000MDE-T QTM532-14.31818MBB-T QTM532-24.000MBB-T QTM532-25.000MBA-T QTM532-27.000MCB-T QTM532-28.63636MBB-T QTM532-33.3330MBB-T QTM532-40.000MBB-T QTM532-44.000MBA-T QTM532-44.000MBB-T QTM532-48.000MBB-T QTM532-50.000MCB-T QTM532-54.000MBE-T QTM532-74.250MCA-T QTM532-75.000MDE-T QTM532-50.000MBA-T QTM532-12.000MBE-T QTM532-16.000MBE-T QTM532-26.000MBE-T QTM532-4.000MBE-T QTM532-156.250MBE-T_QTM532-40.000MCE-T_QTM532-50.000MCE-T_QTM532-16.384MDE-T_QTM532-10.000MDE-T QTM532-32.768MDE-T QTM532-33.000MCE-T QTM532-1.000MCE-T QTM532-10.000MBD-T QTM532-2.048MDE-T QTM532-20.000MCE-T QTM532-24.576MCE-T QTM532-50.000MDE-T QTM532-25.000MBD-T QTM532-33.000MDE-T QTM532-60.000MCE-T QTM532-10.000MCE-T QTM532-24.000MDE-T QTM532-10.000MBE-T QTM532-20.000MDE-T QTM532-33.333MDE-T QTM532-24.000MCE-T QTM532-30.000MCE-T QTM532-48.000MCE-T QTM532-1.000MBE-T QTM532-30.000MBE-T QTM532-12.288MDE-T QTM532-120.000MBE-T QTM532-32.000MBE-T QTM532-2.048MCE-T QTM532-60.000MBE-T QTM532-60.000MDE-T QTM532-20.480MDE-T QTM532-24.000MBE-T QTM532-77.760MBE-T QTM532-80.000MBE-T QTM532-24.576MDE-T QTM532-16.384MCE-T QTM532-2.048MBE-T QTM532-25.000MCE-T QTM532-33.000MBE-T QTM532-114.285MBE-T QTM532-32.768MCE-T QTM532-98.304MBE-T QTM532-150.000MBE-T QTM532-24.576MBE-T QTM532-48.000MDE-T QTM532-66.000MCE-T QTM532-33.333MCE-T QTM532-40.000MBE-T QTM532-20.480MBE-T QTM532-20.480MCE-T QTM532-30.000MDE-T QTM532-66.000MDE-T QTM532-1.000MDE-T QTM532-106.250MBE-T QTM532-12.288MCE-T QTM532-20.000MBE-T QTM532-32.000MDE-T QTM532-155.520MBE-T