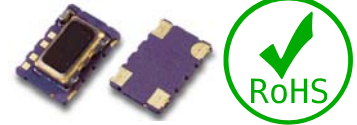


(V)TCT75-4 MHz Series

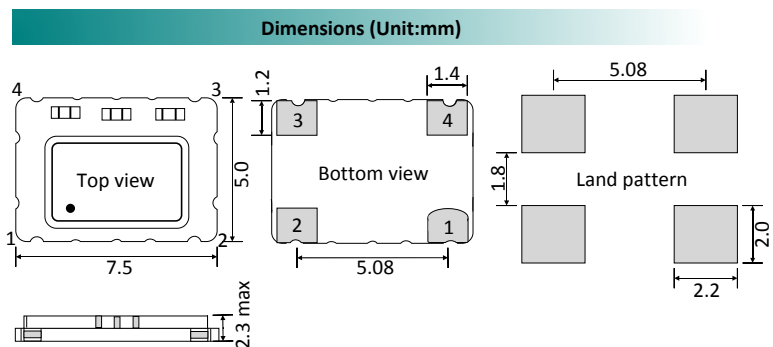
TCXO/VC-TCXO, 7.0 x 5.0mm, HCMOS/TTL

MHz range frequency
 From ± 0.5 ppm stability over $0^{\circ}\text{C} \sim +50^{\circ}\text{C}$
 ESD sensitive device
 Moisture sensitive level (MSL) - 1



Parameters		Specification		Remarks
Frequency range	F_nom	1.25MHz ~ 40.0MHz		
Supply voltage	Vcc	2.5V, 3.0V, 3.3V, 5.0V		
Initial frequency tolerance	F_tol	± 2.0 ppm		At $+25^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Frequency stability	vs Temperature	F_stb	± 0.5 ppm ~ ± 3.0 ppm	Table 1
	vs Load	F_load	± 0.3 ppm max.	$\pm 10\%$ load condition change
	vs Voltage	F_Vcc	± 0.3 ppm max.	$\pm 5\%$ input voltage change
	vs Aging	F_age	± 1.0 ppm/year max.	At $+25^{\circ}\text{C}$
	vs Reflow		± 1.0 ppm/year max.	1 reflow and measured after 24hrs
Operating temperature range ($^{\circ}\text{C}$)	Topr	$0^{\circ}\text{C} \sim +50^{\circ}\text{C}$ to $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$		Table 1
Storage temperature ($^{\circ}\text{C}$)	Tstg	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$		
Output Wave Form		HCMOS/TTL		
Output voltage high	Voh	90% Vcc min.		
Output voltage low	Vol	10% Vcc max.		
Output load		15pF		
Current consumption	Icc	10mA (2.5V), 13mA(3.0V, 3.3V), 27mA(5.0V)		Max Over operating temperature range
Rise and fall time	Tr, Tf	10ns max.		20% to 80% of waveform
Duty cycle	SYM	45%/55%, 40%/60%		Measured at 50% Vcc
Start-up time	T_str	5.0m sec (typ.), 10.0m sec. (Max.)		Reach 90% amplitude at $+25^{\circ}\text{C} \pm 2^{\circ}\text{C}$
VC-TCXO option only				
Control voltage	Vc	$1.5\text{V} \pm 1.0\text{V}$		For all supply voltages
Frequency tuning (ppm)		± 5.0 ppm min.		
Linearity/Slope polarity		$\pm 10.0\%$ max/Positive slope		Positive voltage for positive frequency shift
Input impedance		50.0M Ω min		
Modulation bandwidth		20.0kHz min		

Temp. ($^{\circ}\text{C}$)	Stability in ppm					
	± 0.5	± 1.0	± 1.5	± 2.0	± 2.5	± 3.0
0°C to 50°C	✓	✓	✓	✓	✓	✓
-10°C to 60°C	Enq.	✓	✓	✓	✓	✓
-20°C to 70°C	X	✓	✓	✓	✓	✓
-30°C to 75°C	X	✓	✓	✓	✓	✓
-30°C to 85°C	X	✓	✓	✓	✓	✓
-40°C to 85°C	X	Enq.	✓	✓	✓	✓



Phase Noise (10.0MHz example)		dBc/Hz typical
10Hz		-96
100Hz		-122
1kHz		-138
10kHz		-145
100kHz		-150

Pad 1 : Control voltage (VCTCXO). No connection(TCXO)
 Pad 2 : Ground
 Pad 3 : Output
 Pad 4 : Supply Voltage

(V)TCT75-4 MHz Series



TCXO/VC-TCXO, 5.0 x 3.2mm, HCMOS/TTL

TCXO part number generation											
TT75	2600	M	B	X	N	E	N	X	X	L	-PF
ACT series Code	Frequency (MHz) Ex. 26.00MHz	Temp. stability (±ppm)	Supply voltage (V)	Operating temp. range (°C)	Frequency tuning (±ppm)	Output wave	Mechanical tuning (±ppm)	Polarity	Duty cycle (%/%)	Tape & Reel	RoHS
TT75	< 100MHz First 4 digit of frequency > 100MHz First 5 digit of frequency	0.5 = R 1.0 = P 1.5 = O 2.0 = N 2.5 = M 3.0 = L	2.5V = C 3.0V = E 3.3V = B 5.0V = A	0 ~ 50 = D -10 ~ +60 = F -20 ~ +70 = B -30 ~ +75 = W -30 ~ +85 = X -40 ~ +85 = K	None = N	HCMOS = E HCMOS/TTL = J	None = X	None = X	40/60 = S 45/55 = H	Loose = L 1000 = C 2000 = E	-PF

Note: It is important to suffix the above part number with full frequency required to give a completed part number as illustrated below.
Full Example Part Number : **TT752600MBXNEXXHL-PF [26MHz]**, **TT751474MBXNEXXHL-PF-PF [14.7456MHz]**

VC-TCXO part number generation													
VTT75	1474	M	B	X	N	B	X	D	P	E	Z	L	-PF
ACT series Code	Frequency (MHz) Ex. 14.7456MHz	Temp. stability (±ppm)	Supply voltage (V)	Operating temp. range (°C)	Frequency tuning (±ppm)	Output wave	Mechanical tuning (±ppm)	Electrical tuning (±ppm)	Polarity	Linearity	Duty cycle (%/%)	Tape & Reel	RoHS code
VTT75	< 100MHz First 4 digit of frequency > 100MHz First 5 digit of frequency	0.5 = R 1.0 = P 1.5 = O 2.0 = N 2.5 = M 3.0 = L	2.5V = C 3.0V = E 3.3V = B 5.0V = A	0 ~ 50 = D -10 ~ +60 = F -20 ~ +70 = B -30 ~ +75 = W -30 ~ +85 = X -40 ~ +85 = K	Voltage Control Only = E	HCMOS = E HCMOS/TTL = J	None = X	±5.0 = D	Positive = P	±10% = E	40/60 = S 45/55 = H	Loose = L 1000 = C 2000 = D	-PF

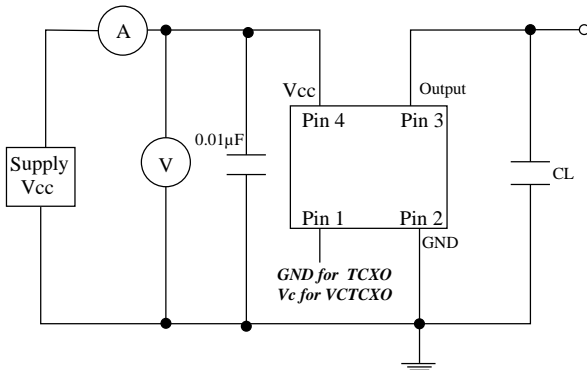
Note: It is important to suffix the above part number with full frequency required to give a completed part number as illustrated below.
Full Example Part Number : **VTT751474MBXEEXDPEHL-PF [14.7456MHz]**

(V)TCT75-4 MHz Series

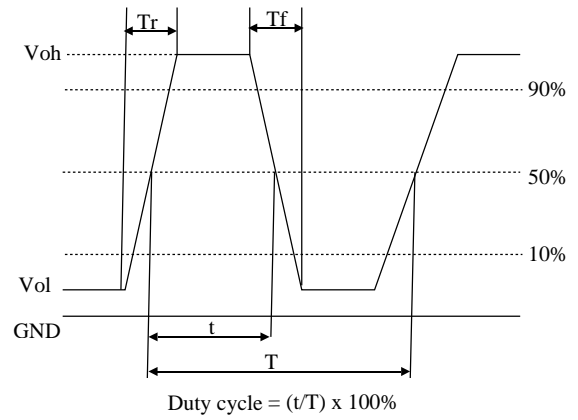
TCXO/VC-TCXO, 5.0 x 3.2mm, HCMOS/TTL



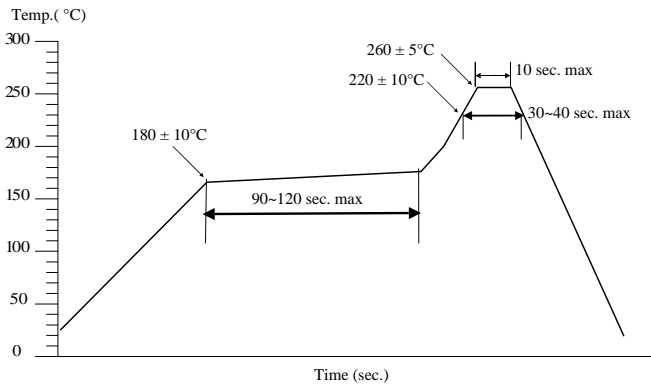
Test circuit



Test waveform



Solder reflow profile



Drawing control: (Internal use only)
Commodity code: 854370 90 99
Issue number : 1
Date : 25042016
Internal reference : M6

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