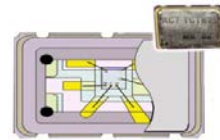


ACT TCTK75-6 LOW POWER HCMOS 1/60Hz~32.768kHz TCXO

- Stability: ±5ppm (-40+85°C)
- Accuracy: ±1.5ppm
- Operating current: 400nA typical



Characteristics

Frequency Range (MHz)	32.768 kHz, 4.096 kHz, 1.024 kHz 128 Hz, 32 Hz 1 Hz 1/10 Hz, 1/60 Hz
Supply voltage ±5% Vcc (V _{DC})	1.8, 2.5, 3.0, 3.3, 5.0
Operating temperature Top (°C)	-40 ~ +85°C
Operating Current (mA max)	Fig 1
Stability v T op (ppm)	±5 (Fig 2)
Stability v Vcc(ppm)	±0.2 (±5% change)
Stability v Load (ppm)	±0.2 (±10% change)
Stability v 1 reflow (ppm)	±1.0 (24hrs after reflow)
Aging @25°C (ppm)	±3 first year max
Tolerance @ 25°C (ppm)	±1.5
Load ±10%	15pF HCMOS
Output voltage (V) (I _{OL} 0.1mA)	V _{OH} Vcc-0.4 min, V _{OL} 0.4V max
Duty Cycle (%)	4/60 (kHz range), 45/55 (Hz range)
Start up time (ms, max)	1 (25°C), 3(85°C)
Switching Jitter (ns)	2000 (kHz range), 0 (Hz range)
Compensation interval (Fig 3)	4 min std, 2min, 1min, 0.5min options
Pad 1	Tristate (Enable high)

Rating

Storage temperature (°C)	-40 ~ 85 max
ESD Sensitivity (KV)*	2 (HBM) IEC 61000-4-2
MSL	Level 1 IPC/JEDEC JSTD-020D.1
Pad surface	0.3~1.2µm Au over 1.27~8.89µm Ni
Leak rate	<2x10 ⁸ ATM/cm ³

Notes:

*ESD sensitive, take appropriate precautions.
 Compensation period: see note on page 2

Dimensions (mm)

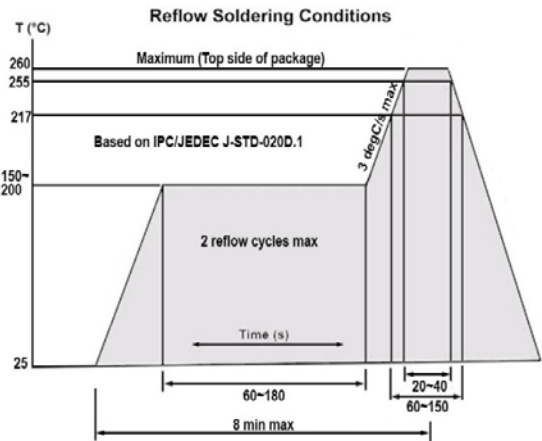
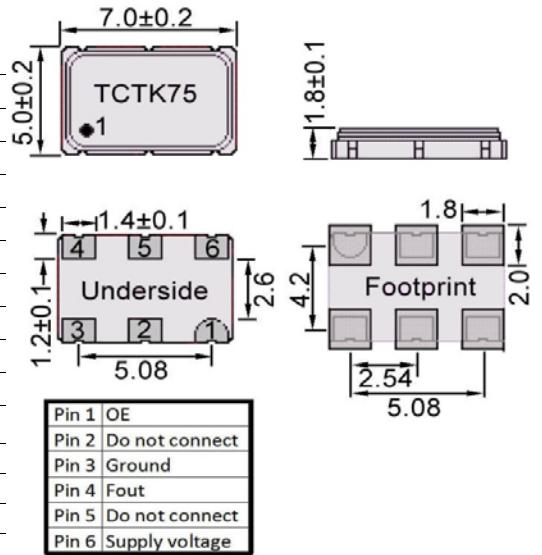
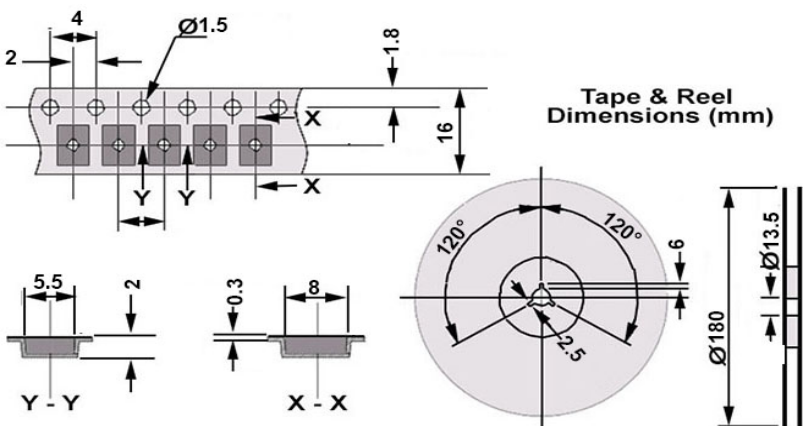
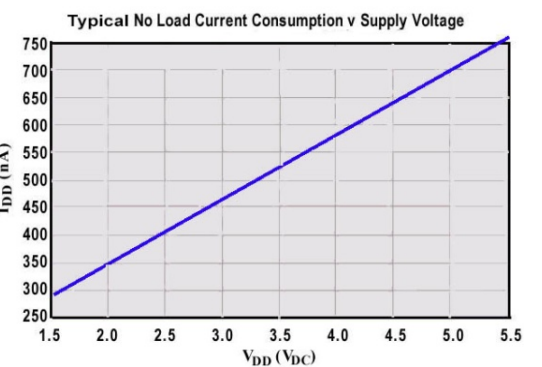


Fig 1



Please note that all parameters can not necessarily be specified in the same device.
 To specify: Please refer to part numbering system appended to the end of this data

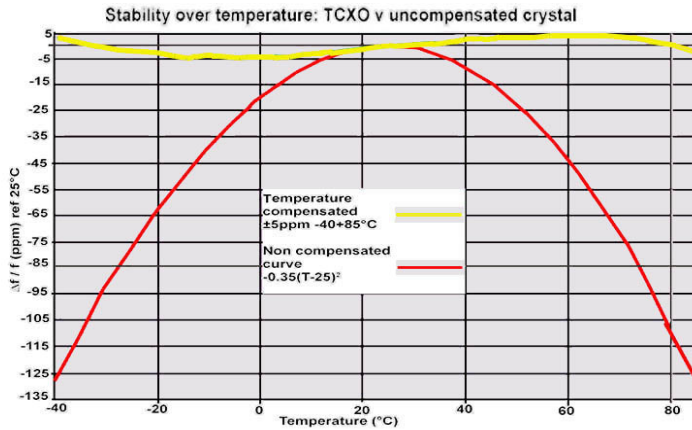
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 3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY
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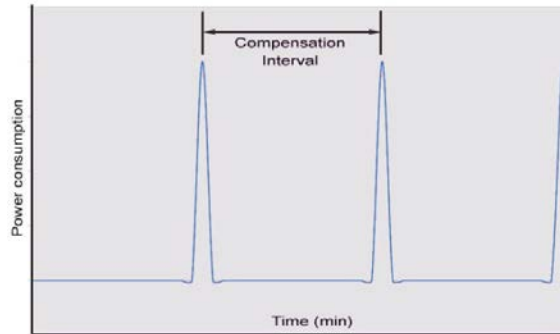
ACT TCTK75-6 LOW POWER HCMOS 1/60Hz~32.768kHz TCXO

Fig 2

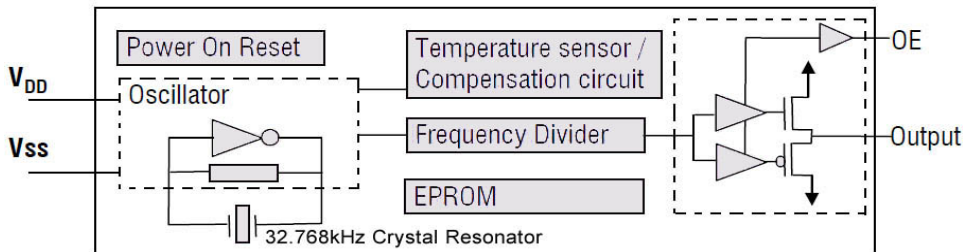


Compensation period (Temperature measurement interval) For the lowest power consumption use the longest interval (4 min). During the temperature measurement the power consumption increases (Fig 3)

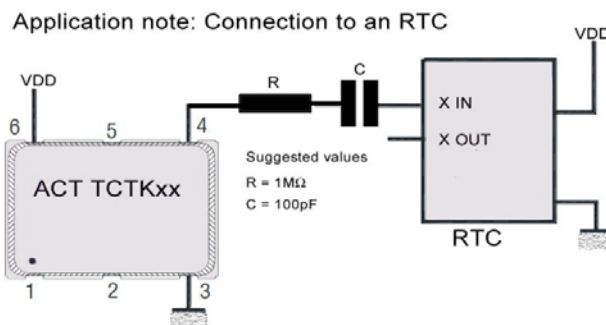
Fig 3



Schematic



Application note (RTC)



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