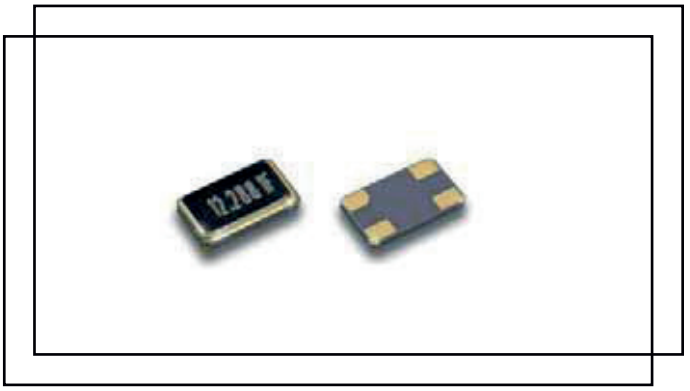
Type TV TCXO
(10.0~ 40.0)MHz



- # low power consumption
- # (5.0 x 3.2)mm footprint
- # VCTCXO available
- # external DC-CUT capacitor required
- # RoHS compliant

Electrical specification

Case style		V: (5.0 x 3.2)mm, height 1.15mm	
Supply voltage Vcc		**+2.8Vd.c.**	**+5.0Vd.c.**
Frequency range		(10 ~ 40)MHz	(10 ~ 26)MHz
Frequency tolerance	+25ºC (1 hour after reflow)	±2.0ppm	
Stability -vs-	temperature	±(0.5 ~ 5.0ppm)	
	Supply voltage (+/-5%) change	±0.2ppm max.	
	Load (+/-10%) change	±0.2ppm max.	
	Ageing	±1.0ppm per year max.	
Supply current max.	10.000MHz ~ <15.000	1.5mA max,	1.5mA max,
	15.000MHz ~ <26.000MHz	2.0mA max.	2.0mA max.
	26.000MHz ~ <40.000MHz	2.5mA max.	n/a
Phase noise (@13MHz)	F0+100Hz	-115dBc/Hz	
	F0+1kHz	-135dBc/Hz	
	F0+10kHz	-148dBc/Hz	
Operating temperature		(0 ~ +55)ºC ~ (-40 ~ +85)ºC	
Storage temperature		(-55 ~ +125)ºC	
Output		@10kΩ//10pF	

Ordering information

Example .... type TV smd VC-TCXO, 13.00MHz, +3.3Vd.c., ±10ppm pulling, ±2.5ppm (-30 +85)°C, Clipped sine wave

TFC PART NUMBER .... TV 13.00M E C D D S

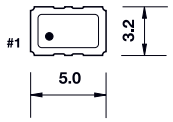
'TV' .... type number: TV = smd clock oscillator type TV
'13.00M' .... frequency: 13.00M = 13.00MHz, frequency range from (10 ~ 26)MHz, (10 ~ 40)MHz for +2.8Vd.c.
'E' .... supply voltage: C = +5.0Vd.c., E = +2.8Vd.c.
'C' .... pulling range: A = ±5.0ppm, B = ±8.0ppm, C = ±10.0ppm, T = TCXO, VCON range: 0.5V to 2.5V
'D' .... frequency stability: A = ±0.5ppm, B = ±1.0ppm, P = ±1.5ppm, C = ±2.0ppm, D = ±2.5ppm, E = ±3.0ppm, G = ±5.0ppm
'D' .... temperature range: B = (0 +55)°C, I = (-10 +60)°C, C = (-20 +70)°C, D = (-30+85)°C, L = (-40+85)°C
'S' .... output logic and symmetry: S = clipped sine wave @10kΩ//10pF

Telephone: +44 (0)1903 740000, Fax: +44 (0)1903 742208,
e-mail: sales@tfc.co.uk, url: www.tfc.co.uk

ISO9001: 2008
RS13124
ISO14001: 2004
EMS53965

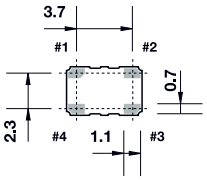
Type TV clock oscillator

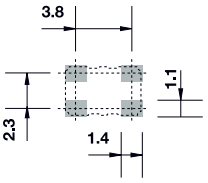
TV dimensions(mm) shown twice full size



Suggested land pattern

Connect 0.1µF capacitor between Vcc and ground





Pads viewed from bottom

#1 output inhibit
#2 ground
#3 output
#4 Vcc

Output inhibit:

#1 voltage control: VCTCXO
#1 ground: TCXO

Environmental test conditions (on request)

Mechanical shock	*1500g, half sine wave, 0.5ms, 3 directions*	*MIL STD 883D 2002.3, condition A*
Thermal shock	*(-55 ~ +125)°C, 20 cycles*	*MIL STD 883D 1011.9, condition B*
Vibration	*(10 ~ 2000)Hz, 1.25mm, sine wave, 20g, each of three planes, duration 4 hours*	*MIL STD 883D 2005.2, condition B*
Solderability	*+245°C ±5°C, 5 seconds ±0.5 seconds*	*MIL STD 883D 2003.7*
Fine leak	*Mass spectrometer leak rate less than 2^{10-8} atm.cc/sec. helium*	*MIL STD 883D 1014.9, condition A*
Gross leak	*Leak test in de-ionised water, vacuum 70cm/Hg*	
Humidity	*85% relative humidity, +85°C, 500 hours*	*JIS-C 7022 B-5, conditionC*

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