

MAT(V) Series

(VC)TCXO



Temp. Compensated Crystal Oscillators 7.0×5.0mm
Widely used for the telecommunications, Aerospace, defense and Military Industries.

General Data

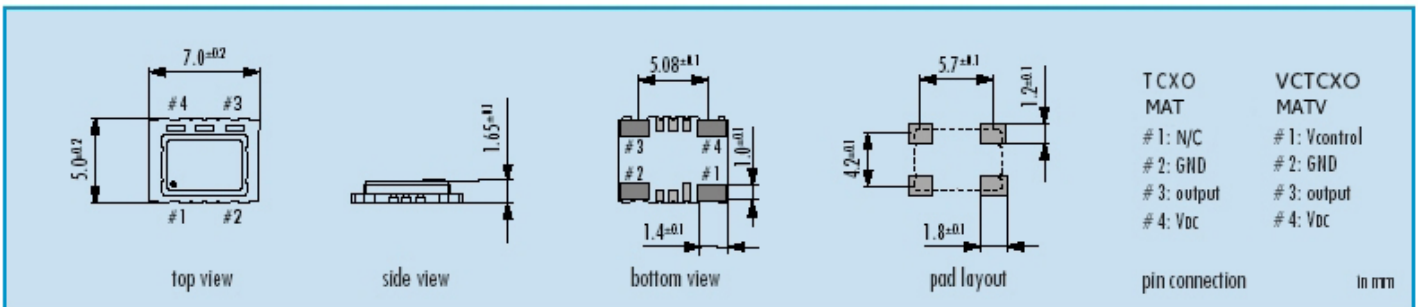
type		MAT / MATV
frequency range		10.0 ~ 40.0 MHz
frequency stability	at +25 °C	± 0.5ppm
	temperature	± 1ppm ~ ± 2.5ppm (table 1)
	aging first year	± 1ppm
	supply voltage	± 0.2ppm (at V _{DC} ± 5%)
	load change	± 0.2ppm
current consumption max.		2.0mA max.
supply voltage V _{DC}		2.8 / 3.0 / 3.3 / 5.0 V (± 5%)
temperature	operating	see table 1
	storage	-55 °C ~ +125 °C
output	load nom.	10KΩ // 10pF
	level min.	0.8Vpp (clipped sine)
external tuning range MATV		± 8ppm min.
external tuning voltage		0.5 V To 0.9 V _{DC}
start-up time max.		2.0 ms
phase noise	at 100Hz	-115 dBc/Hz
	at 1KHz	-135 dBc/Hz
	at 10KHz	-150 dBc/Hz

Table 1: Frequency Stability vs. Temperature

operating temperature code	frequency stability code			
	1	2	3	4
	± 2.5ppm	± 2.0 ppm	± 1.5 ppm	± 1.0 ppm
A: 0 °C ~ +85 °C	Y	Y	Y	Y
B: -10 °C ~ +70 °C	Y	Y	Y	Y
C: -30 °C ~ +75 °C	Y	Y	Y	Y
D: -40 °C ~ +85 °C	Y	Y	Y	Y
E: -45 °C ~ +95 °C	Y	Y	N	N

Environmental And Mechanical	
Mechanical Shock	Per MIL-STD-883 ,Method 2002 ,Cond.B
Thermal Shock	Per MIL-STD-883 ,Method 1011 ,Cond.A
Vibration	Per MIL-STD-883 ,Method 2007 ,Cond.A
Seal	Per MIL-STD-883, Method 1014, Condition B & C
Solderability	Per MIL-STD-883 ,Method 2003 ,Cond.A

Dimensions



Part Numbering Guide

