

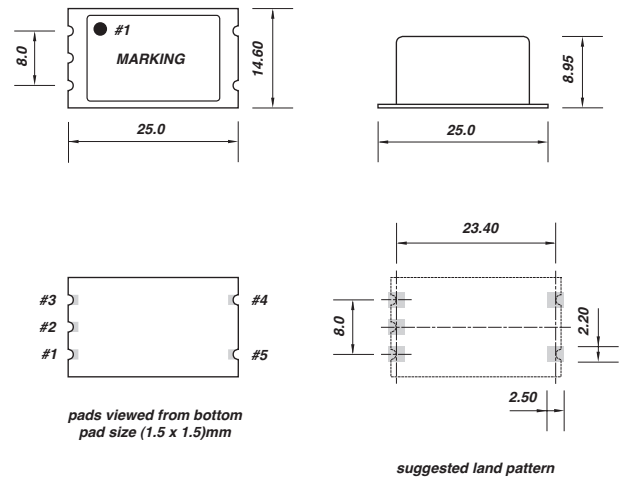
**Optimised performance 10.00MHz  
smd DIL OCXO**

Temperature tolerance:  $\pm 0.02\text{ppm}(-20 +70)^\circ\text{C}$   
 Phase noise:  $-160\text{dBc}/\text{Hz}$ ,  $f_o +1\text{KHz}$   
 Low profile smd package  
 SC cut crystal  
 Supply  $+12\text{Vd.c.}$   
 Quiescent current:  $140\text{mA max. at } +25^\circ\text{C}$   
 RoHS compliant

**Generic specification:**

<b>frequency:</b>	10.000MHz
<b>output:</b>	CMOS 15pF, 45% ~ 55% <5ns max. rise and fall
<b>stability:</b>	
against temperature	$\pm 0.02\text{ppm}(-20 +70)^\circ\text{C}$
against supply voltage change	$\pm 0.002\text{ppm max.}, V_{cc} \pm 5\%$
against load change	$\pm 0.002\text{ppm max.},$ load $\pm 10\%$
ageing short term	$\pm 0.0002\text{ppm max. per day}$ after 30 days continuous operation
ageing long term	$\pm 0.05\text{ppm max. per year}$ after 30 days continuous operation
voltage trim $V_t$	$\pm 1\text{ppm typical},$ $1.5\text{Vd.c. } \pm 1.5\text{Vd.c.}$ linearity $\pm 5\%$
trim input impedance	$100\text{K}\Omega \text{ min.}$
<b>power supplies:</b>	
supply voltage $V_{cc}$	$+12\text{Vd.c.}$
voltage reference	$+3\text{Vd.c.}$
start up current	$370\text{mA max. at } -20^\circ\text{C}$
quiescent current	$140\text{mA max. at } +25^\circ\text{C}$
warm up time	$2 \text{ minutes max.}$ to within $0.1\text{ppm}$ of nominal
insulation resistance	$500\text{Meg}\Omega \text{ min.}, 100\text{Vd.c.}$
<b>phase noise:</b>	$-130\text{dBc}/\text{Hz}, f_o +10\text{Hz}$ $-150\text{dBc}/\text{Hz}, f_o +100\text{Hz}$ $-160\text{dBc}/\text{Hz}, f_o +1\text{kHz}$
<b>temperature:</b>	
operating range	$(-20 +70)^\circ\text{C}$
storage range	$(-40 +125)^\circ\text{C}$
<b>marking:</b>	part number, frequency, date code, serial number

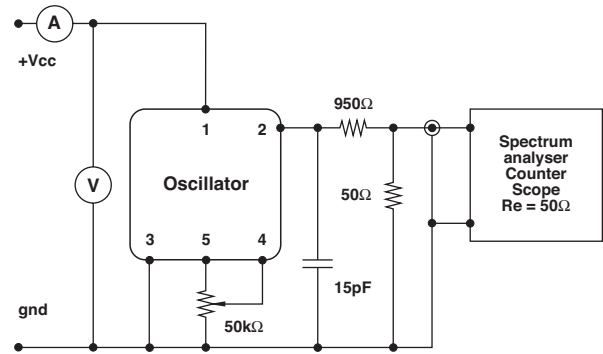
**Dimensions(mm):**



**Pin connections:**

- # 1  $+V_{cc}$
- # 2 output
- # 3 ground/case
- # 4 tune
- # 5  $V_{ref}$

**Test circuit, CMOS load:**



test circuit includes a 20:1 step down into a matched 50Ω load

**Environmental conditions:**

- MIL standard 202F** method 213, condition J
- MIL standard 202F** method 107, condition A
- MIL standard 202F** method 204, condition B
- solderability** 5 seconds max. at  $+230^\circ\text{C}$   
3 seconds max. at  $+350^\circ\text{C}$

