

## Optimised performance 10.00MHz low voltage smd DIL OCXO

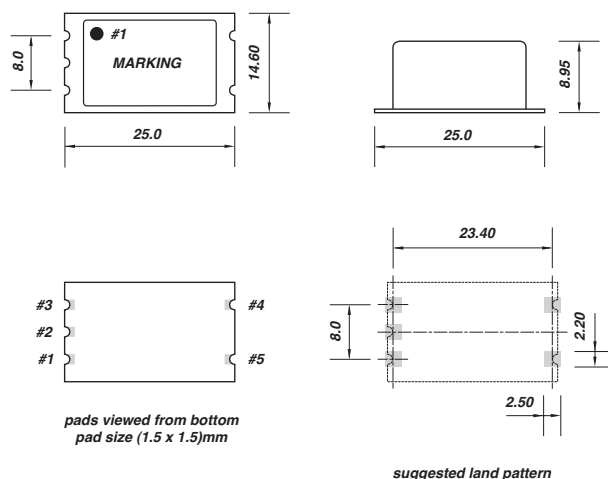
- **Temperature tolerance:**  $\pm 0.02\text{ppm}(-20 +70)^{\circ}\text{C}$
- **Phase noise:**  $-160\text{dBc}/\text{Hz}$ ,  $f_o +1\text{KHz}$
- **Low profile smd package**
- **SC cut crystal**
- **Supply (3.3, 5, 9 or 12)Vd.c.**
- **Quiescent current:** 140mA max. at  $+25^{\circ}\text{C}$
- **RoHS 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 $V_{cc}$ 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 $V_t$	$\pm 1\text{ppm typical},$ $1.5Vd.c. \pm 1.5Vd.c.$ linearity $\pm 5\%$
trim input impedance	100K $\Omega$ min.
<b>power supplies:</b>	
supply voltage $V_{cc}$	(3.3, 5, 9 or 12)Vd.c.
voltage reference	+3Vd.c.
start up current	220mA, 12Vd.c. supply 370mA, 9Vd.c. supply 540mA, 5Vd.c. supply 820mA, 3.3Vd.c. supply
quiescent current	100mA, 12Vd.c. supply 140mA, 9Vd.c. supply 220mA, 5Vd.c. supply 350mA, 3.3Vd.c. supply
warm up time	2 minutes max. to within 0.1ppm of nominal
insulation resistance	500Meg $\Omega$ min., 100Vd.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

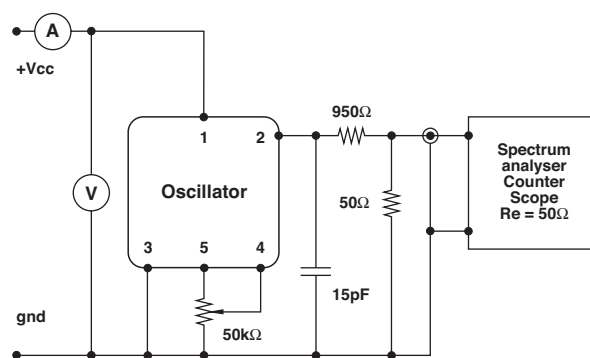
### Dimensions(mm):



### 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 50 $\Omega$  load