

A sub-miniature, low profile, smd crystal clock oscillator manufactured over the frequency range of 1MHz to 40MHz. Tight symmetry, low jitter, low ageing, combined tolerance from  $\pm 20$ ppm.

A standard package for new designs and volume applications combining small size and tight tolerance over an extended temperature range.

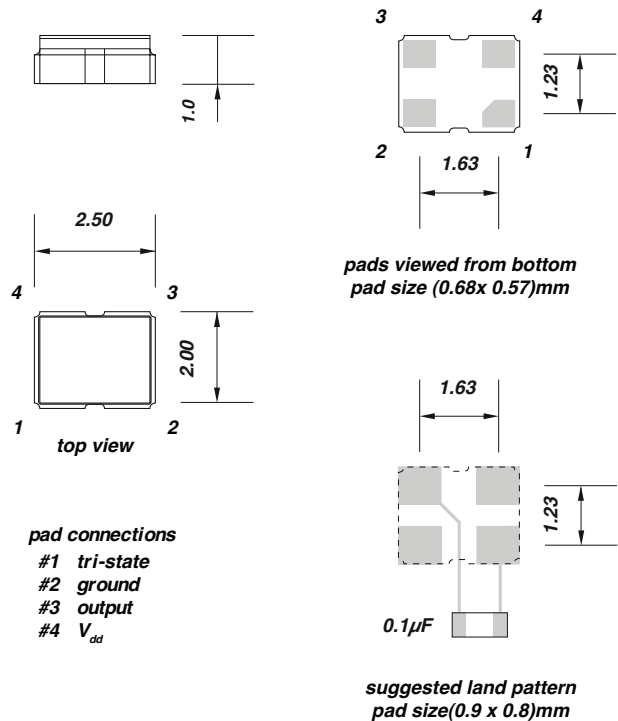
Supplied on tape and reel 1000; 2000, 3000 or 5000 pieces per reel.

**Frequency stability -vs- temperature:**

temp. range	combined tolerance		
(-10 +60)°C	$\pm 20$ ppm	$\pm 25$ ppm	$\pm 50$ ppm
(-20 +70)°C	$\pm 20$ ppm	$\pm 25$ ppm	$\pm 50$ ppm
(-40 +85)°C		$\pm 25$ ppm	$\pm 50$ ppm

Tolerance inclusive of calibration tolerance at +25°C, temperature tolerance, load variation and supply voltage variation, first year ageing, vibration and shock

**Dimensions(mm)**



**Electrical specification:**

	3.3Vd.c.		2.5Vd.c.		1.8Vd.c.		
	min.	max.	min.	max.	min.	max.	
supply voltage $\pm 10\%$	2.97	3.63	2.25	2.75	1.62	1.98	Vd.c.
frequency range	(1 ~ 40)MHz						MHz
standard frequencies	24.0, 26.0, 40.0						MHz
supply current	-	15	-	10	-	7	mA
duty cycle	45% ~ 55%						%
CMOS o/p high	90% V <sub>DD</sub>		90% V <sub>DD</sub>		90% V <sub>DD</sub>		V
CMOS o/p low	10% V <sub>DD</sub>		10% V <sub>DD</sub>		10% V <sub>DD</sub>		V
t <sub>r</sub> 1MHz ~ 20MHz	-	3	-	4	-	5	nano sec.
t <sub>r</sub> 20MHz ~ 40MHz	-	2	-	3	-	4	nano sec.
start up time	2		2		2		milli sec.
tri-state: active o/p	0.7V <sub>DD</sub>		0.7V <sub>DD</sub>		0.7V <sub>DD</sub>		V
tri-state: high impedance o/p	0.3V <sub>DD</sub>		0.3V <sub>DD</sub>		0.3V <sub>DD</sub>		V
absolute clock period jitter	40		40		40		pico sec.
standby current	15		15		15		μA
ageing	$\pm 3$		$\pm 3$		$\pm 3$		ppm
storage temperature range	(-55 +125)°C						°C