type OX smd clock oscillator (3.2 x 2.5)mm

April 18th 2016

A miniature, low profile, smd crystal clock oscillator manufactured over the frequency range of 1.25MHz to 100MHz. Tight symmetry, low jitter, low ageing, combined tolerance from ±30ppm. Extended temperature range (-55 ~ 125)°C.

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

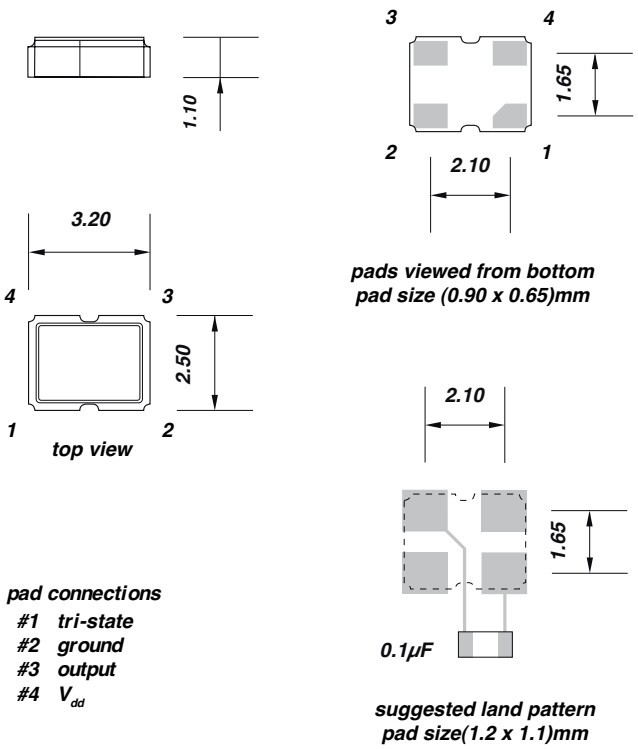
Supplied on tape and reel 1000, 2000, 3000, 5000 pieces per reel.

Frequency stability -vs- temperature:

temp. range	combined tolerance		
(-40 +85)°C	±30ppm	±40ppm	±50ppm
(-40 +105)°C	±30ppm	±40ppm	±50ppm
(-40 +125)°C		±40ppm	±50ppm
(-55 +125)°C		±40ppm	±50ppm

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

Dimensions(mm)



pad connections

#1 tri-state
#2 ground
#3 output
#4 V_{dd}

Electrical specification:

	3.3Vd.c.		2.5Vd.c.		1.8Vd.c.		
	min.	max.	min.	max.	min.	max.	
supply voltage ±10%	2.97	3.63	2.25	2.75	1.62	1.98	Vd.c.
frequency range	(1.25 ~ 100)MHz						MHz
standard frequencies	24.0, 26.0, 32.0, 38.4, 40.0						MHz
supply current fo < 80MHz	-	10	-	8	-	5	mA
supply current > 80MHz	-	15	-	10	-	8	mA
duty cycle	45% ~ 55%						%
CMOS o/p high	2.97		2.25		1.62		V
CMOS o/p low		0.33		0.25		0.18	V
Rise and fall time t_r	-	3	-	4	-	5	nano sec.
start up time		2		2		2	milli sec.
tri-state pin #1: enable (high voltage or floating)	2.31	-	1.75	-	1.26	-	V
tri-state pin #1: disable low voltage or ground	-	0.99	-	0.75	-	0.54	V
absolute clock period jitter	-	40	-	40	-	40	pico sec.
RMS phase jitter (integrated 12kHz ~ 20MHz)	-	1	-	1	-	1	pico sec
1st year aging @ +25 °C	-	±3	-	±3	-	±3	ppm
storage temperature range	(-55 +125)°C						°C

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Ordering information

EXAMPLE	type OX clock oscillator, 40.00MHz, ±30ppm(-40 +85)°C, +3.3Vd.c., output CMOS
TFC PART NUMBER	**OX 40.0M E E L**
OX	type: OX = clock oscillator type OX, smd
40.0M	frequency: 40.0M = frequency in MHz, frequency range (1.25 ~ 100)MHz
E	supply voltage: E = +3.3Vd.c.,
E	frequency stability: E = ±30ppm
L	temperature range: L = (-40 +85)°C
OPTIONS	
supply voltage	K = 1.8Vd.c., J = 2.5Vd.c., E: +3.3Vd.c.
frequency stability	E: ±30ppm, : F = ±40ppm, G = ±50ppm
temperature range	L: (-40 +85)°C , J: (-40 +105)°C, H: (-40 +125)°C, F: (-55 +125)°C

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