type OX-B smd clock oscillator (3.2 x 2.5)mm

July 24th 2021

A precision, miniature, low profile, high precision smd crystal clock oscillator manufactured over the frequency range of (1 ~ 200)MHz. Tight symmetry, low jitter, low ageing, combined tolerance from ±3ppm.

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

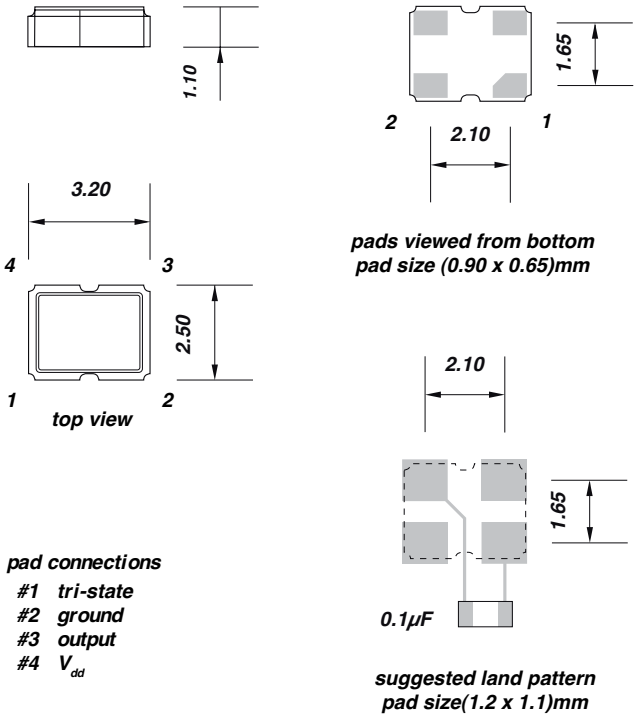
Supplied on tape and reel 1000, 2000, 3000, 5000 pieces per reel.

Frequency stability -vs- temperature:

temp. range	combined tolerance			
(-10 +60)°C	±3ppm	±5ppm	±10ppm	±12ppm
(-20 +70)°C	-	±5ppm	±10ppm	±12ppm
(-30 +85)°C	-	-	±10ppm	±12ppm

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	-5%	+5%	-5%	+5%	-5%	+5%	Vd.c.
standard drive frequency range 8mA, max. 15pF	(1 ~ 200)MHz		(1 ~ 200)MHz		(1 ~ 125)MHz		MHz
low drive frequency range 4mA, max. 5pF	(1 ~ 150)MHz		(1 ~ 125)MHz		(1 ~ 50)MHz		MHz
supply current for 15pF load	-	30	-	28	-	20	mA
duty cycle	45% ~ 55%						%
CMOS o/p high	90% V_{DD}		90% V_{DD}	-	90% V_{DD}		V
CMOS o/p low	-	10% V_{DD}	-	10% V_{DD}	-	10% V_{DD}	V
standard rise and fall times	-	2	-	2	-	3	nano sec.
low drive rise and fall times		5		6		10	nano sec.
start up time	-	8	-	8	-	8	milli sec.
tri-state: active o/p	0.7V_{DD}	-	0.7V_{DD}	-	0.7V_{DD}	-	V
tri-state: high impedance o/p	-	0.3V_{DD}	-	0.3V_{DD}	-	0.3V_{DD}	V
RMS phase jitter(12kHz ~ 20MHz)	-	2	-	2	-	2	pico sec.
standby current		400		400		400	µA
output loading		15		15		15	pF
ageing max. @25°C, first year	-	±1	-	±1	-	±1	ppm
storage temp. range	-55	+125	-55	+125	-55	+125	°C

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Ordering information

EXAMPLE	type OX-B high precision clock oscillator, 40.00MHz, ±10ppm(-30 +85)°C, +3.3Vd.c., output CMOS
LOAD DRIVE LEVEL	specify if operated at low drive level
TFC PART NUMBER	**OXB 40.0M E B D**
OXB	type: OX-B = high precision clock oscillator type OX-B, smd
40.0M	frequency: 40.0M = frequency in MHz, frequency range (1 ~ 200)MHz
E	supply voltage: E = +3.3Vd.c.,
B	frequency stability: B = ±10ppm
D	temperature range: D = (-30 +85)°C
OPTIONS	
supply voltage	K = 1.8Vd.c., J = 2.5Vd.c., E = +3.3Vd.c.
frequency stability	K = ±3ppm, A = ±5ppm, B = ±10ppm, L = ±12ppm
temperature range	I = (-10 +60)°C, C = (-20 +70)°C, D = (-30 +85)°C

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