

Type VW - F smd VCXO (1.5 ~ 80)MHz, CMOS (5.0 x 3.2)mm, height 1.3mm

A high quality, miniature smd, voltage controlled crystal oscillator manufactured over the frequency range of 1.5MHz to 80MHz. Tight symmetry, wide pulling range, +5V d.c. and +3.3V d.c. supply.

A standard package providing an excellent combination of parameters within a small smd enclosure.

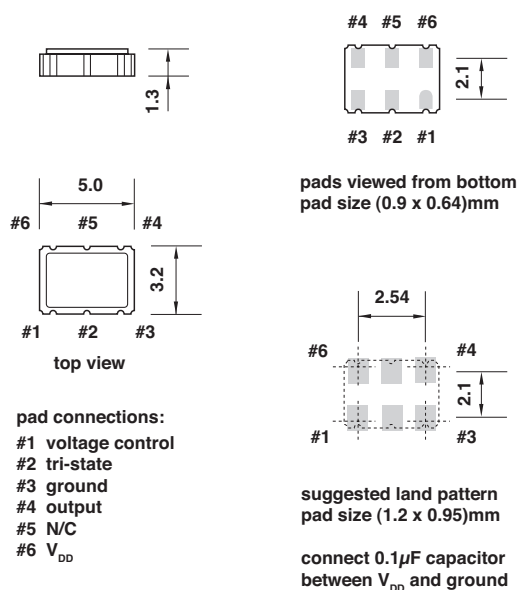
Supplied on tape and reel with 1000, 2000, 3000 and 5000 pieces per reel.

Frequency stability -vs- temperature:

TEMP. RANGE	COMBINED TOLERANCE	
(-10 +60)°C	±25ppm	±50ppm
(-20 +70)°C	±25ppm	±50ppm
(-40 +85)°C		±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)



Electrical specification:

	5.0Vd.c.		3.3Vd.c.		
	min.	max.	min.	max.	
supply voltage ±10%	4.5	5.5	2.97	3.63	Vd.c.
frequency range	(1.5 ~ 80)MHz		(1.5 ~ 80)MHz		MHz
pulling range	±50	-	±50	-	ppm
control voltage range	0.5	4.5	0.3	3.0	V
supply current (1.5 ~ 20)MHz	-	15	-	10	mA
supply current (20 ~ 50)MHz	-	30	-	20	mA
supply current (50 ~ 80)MHz	-	35	-	30	mA
CMOS o/p high	90% V _{DD}		90% V _{DD}		V
CMOS o/p low	10% V _{DD}		10% V _{DD}		V
t _r 1.5MHz ~ 20MHz	-	4	-	5	nano sec.
t _r 20MHz ~ 50MHz	-	3	-	4	nano sec.
t _r 50MHz ~ 80MHz	-	2	-	3	nano sec.
start up time	-	5	-	5	milli sec.
tri-state: active o/p	0.7V _{DD}	-	0.7V _{DD}	-	V
tri-state: high impedance o/p	-	0.3V _{DD}	-	0.3V _{DD}	V
absolute clock period jitter	-	40	-	40	pico sec.
RMS phase jitter(integrated 12kHz ~ 20MHz)	-	1	-	1	pico.sec
linearity	-	10	-	10	%
modulation bandwidth (1.5 ~ 80)MHz	20	-	20	-	kHz
input impedance (1.5 ~ 100)MHz)	2000	-	2000	-	kΩ
input impedance (100 ~ 200)MHz)	50	-	50	-	kΩ
ageing	-	±3	-	±3	ppm
storage temperature range	(-55 +125)°C				°C

Ordering information

EXAMPLE	<i>type VW - F smd VCXO, 19.44MHz, ±50ppm pulling, +3.3Vd.c., ±25ppm(-20 +70)°C</i>
TFC PART NUMBER	VW - F 19.44M E M C
VW - F	<i>type: VW - F = VCXO type VF; (5.0 x 3.2)mm package, F; CMOS load</i>
40.0M	<i>frequency: 19.44MHz, frequency range (1.5 ~ 200)MHz</i>
E	<i>supply voltage: E = +3.3Vd.c.</i>
M	<i>frequency stability: M = ±25ppm</i>
C	<i>temperature range: C = (-20 +70)°C</i>
OPTIONS	
supply voltage	<i>E: +3.3Vd.c., C: +5Vd.c.</i>
frequency stability	<i>M: ±25ppm, P: ±50ppm</i>
temperature range	<i>C: (-20 +70)°C, L: (-40 +85)°C</i>