

XV sub miniature smd crystal
(8 ~ 80)MHz fundamental
(80.1 ~ 400)MHz inverted mesa fundamental

- (5.0 x 3.2)mm, height 0.9mm, ceramic metal package
- tight tolerance
- 12mm tape and reel
- 1000/ 2000/ 3000/ 5000 pieces per reel
- RoHS compliant

Electrical specification

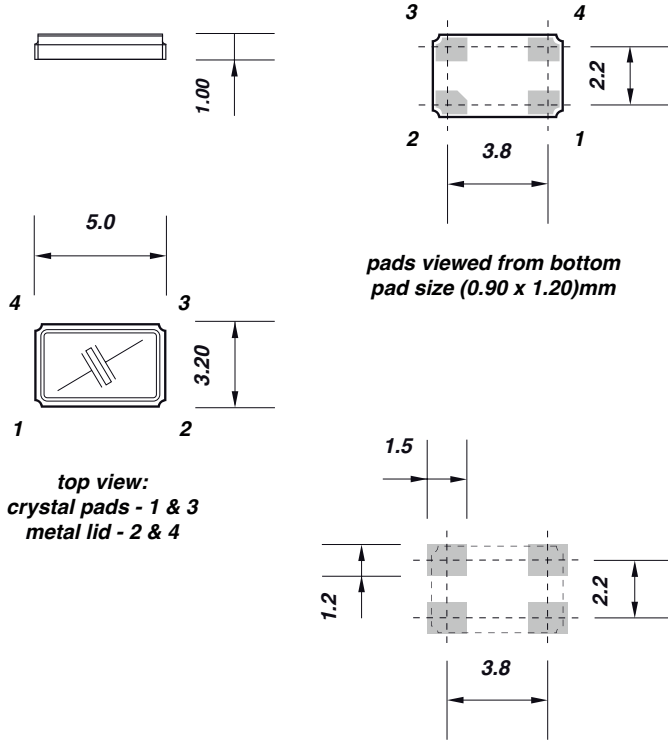
case style	XV: (5 x 3.2)mm, height 0.9mm
frequency range	(8 ~ 400)MHz
standard frequencies	12.00MHz, 16.00MHz, 20.00MHz, 25.00MHz, 27.00MHz, 28.00MHz, 40.00MHz, 122.326MHz, 122.324MHz, 122.408MHz, 122.430MHz, 156.125MHz
adjustment tolerance	from ± 10 ppm at +25°C, frequency dependent
temperature tolerance	from ± 10 ppm, frequency and temperature range dependent
operating temperature	(-10 +60)°C ~ (-40 +85)°C
storage temperature	(-55 +125)°C
load	customer specified
shunt capacitance C_0	(8 ~ 80)MHz 5.0pF max., (80.1 ~ 400)MHz 3.0pF max.
drive level	10 μ W typical, 300 μ W max.
Q factor	>40K for f<70MHz
ageing	± 3 ppm first year max.
insulation resistance	500Meg. ohm min. at+100Vd.c.

Ordering information

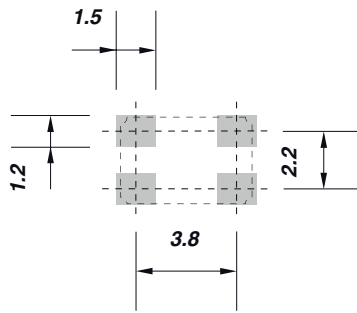
EXAMPLE	XV crystal, 16.00MHz, load 20pF, ± 10 ppm at +25°C, ± 10 ppm(-10 +60)°C
TFC PART NUMBER	XV 16.00M H B B I
XV	crystal series: XV
16.00M	frequency: 16.00M = 16.00MHz, frequency range from (8 ~ 400)MHz
H	load capacitance: H = 20pF
B	adjustment tolerance at +25°C: C = ± 10 ppm
B	temperature tolerance: B = ± 10 ppm
I	temperature range: I = (-10 +60)°C
OPTIONS	Not all combinations of options are available
load capacitance	A: 8pF, B: 9pF, C: 10pF, D: 12pF, E: 15pF, F: 16pF, G: 18pF, H: 20pF, J: 32pF, S: series
adjustment tolerance	A: ± 5 ppm, B: ± 10 ppm, P: ± 15 ppm, C: ± 20 ppm, E: ± 30 ppm, G: ± 50 ppm
temperature tolerance	A: ± 5 ppm, B: ± 10 ppm, P: ± 15 ppm, C: ± 20 ppm, E: ± 30 ppm, G: ± 50 ppm, H: ± 100 ppm, I: ± 150 ppm
temperature range	B: (0 +55)°C, I: (-10 +60)°C, C: (-20 +70)°C, D: (-25 +85)°C, L: (-40 +85)°C

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XV dimensions(mm)



**pads viewed from bottom
pad size (0.90 x 1.20)mm**



suggested land pattern

**pads are gold 2.5µ min. over nickel,
suitable for vapour phase or reflow
soldering**

ESR - equivalent series resistance

frequency range(MHz)	cut/mode	esr(Ω)
8 ~ 11	AT1	<100
11 ~ 12	AT1	<65
12 ~ 13	AT1	<60
13 ~ 16	AT1	<55
16 ~ 24	AT1	<50
24 ~ 48	AT1	<40
48 ~ 53.125	AT1	<45
80	AT1	<60
80.1 ~ 400	AT1	<60