

**XY micro miniature
ultra thin smd crystal
(16.0 ~ 54.0)MHz fundamental**

- (2.5 x 2.0)mm, height 0.6mm
- ceramic package, vacuum seal
- 8mm tape and reel, 3000 pieces per reel
- RoHS compliant

Electrical specification

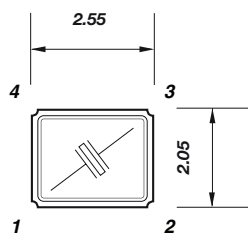
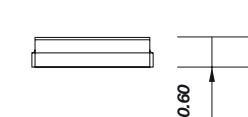
case style	XY: (2.5 x 2.0)mm, height 0.6mm
frequency range	(16.0 ~ 54.0)MHz
standard frequencies	16.00MHz, 24.00MHz, 26.00MHz
adjustment tolerance	from ± 10 ppm at +25°C, frequency dependent
temperature tolerance	from ± 10 ppm, frequency and temperature range dependent
operating temperature	(-10 +60)°C ~ (-40 +85)°C
storage temperature	(-55 +125)°C
load	customer specified
shunt capacitance C₀	3.0pF max.
drive level	10µW typical, 100µW max.
Q factor	80,000 typical
ageing	± 1 ppm first year max.
insulation resistance	500Meg. ohm min. at+100Vd.c.

Ordering information

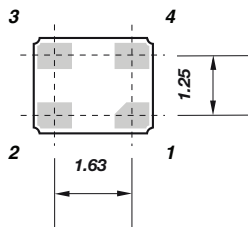
EXAMPLE	XY crystal, 16.00MHz, load 20pF, ± 10 ppm at +25°C, ± 10 ppm(-10 +60)°C
TFC PART NUMBER	XY 16.00M H B B I
XY	crystal series: XR
16.00M	frequency: 16.00M = 16.00MHz, frequency range from (16.0 ~ 54.0)MHz
H	load capacitance: H = 20pF
B	adjustment tolerance at +25°C: C = ± 10 ppm
B	temperature tolerance: B = ± 10 ppm
I	temperature range: I = (-10 +60)°C
OPTIONS	
load capacitance	A: 8pF, B: 9pF, C: 10pF, D: 12pF, E: 15pF, F: 16pF, G: 18pF, H: 20pF, J: 32pF, S: series
adjustment tolerance	B: ± 10 ppm, P: ± 15 ppm, C: ± 20 ppm, D: ± 25 ppm, E: ± 30 ppm, G: ± 50 ppm, H: ± 100 ppm
temperature tolerance	B: ± 10 ppm, P: ± 15 ppm, C: ± 20 ppm, D: ± 25 ppm, E: ± 30 ppm, G: ± 50 ppm, H: ± 100 ppm
temperature range	B: (0 +55)°C, I: (-10 +60)°C, C: (-20 +70)°C, L: (-40 +85)°C

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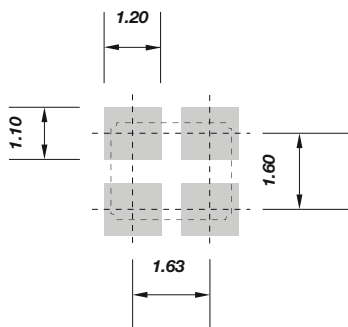
XY dimensions(mm)



top view:
crystal pads - 1 & 3
metal lid - 2 & 4



pads viewed from bottom
pad size (0.55 x 0.73)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)
16 ~ 20	AT1	<100
20 ~ 30	AT1	<80
30 ~ 54	AT1	<60