XS miniature smd crystal (10.0 ~ 50.0)MHz

- # (5.0 x 3.2)mm full ceramic case
- # 16mm tape and reel
- # standard and custom frequencies
- # AT cut quartz
- # RoHS compliant optional

Electrical specification

Case style	XS: height 1.3mm
Frequency range	(10.0 ~ 50.0)MHz, fundamental
standard frequencies	12.00MHz, 12.80MHz,13.0MHz, 14.40MHz, 15.36MHz, 16.0MHz, 16.80MHz, 19.20MHz, 19.50MHz, 19.68MHz, 24.00MHz, 26.0MHz, 32.00MHz
Adjustment tolerance	from ±30ppm at +25°C, frequency dependent
Temperature tolerance	from ±5ppm, 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	7.0pF max.
Drive level	10µW typical
Q factor	80,000 typical
Ageing	±5ppm max. per year
Insulation resistance	500Meg. ohm min. at 100Vd.c.

Ordering information

The XS smd crystals may be specified within their available frequency range together with load capacitance, adjustment tolerance, temperature tolerance and temperature range with each parameter coded as follows ....

Example .... XS crystal, 13.00MHz, load 20pF, ±50ppm at +25°C, ±50ppm(-10 +60)°C

TFC PART NUMBER .... XS 13.00M H G G I

'XS' .... crystal series: XS
'13.00M' .... frequency: 13.00M = 13.00MHz, frequency range from (10.0 ~ 50.0)MHz
'H' .... load capacitance: H = 20pF
'G' .... adjustment tolerance at +25°C: B = ±50ppm
'G .... temperature tolerance: B = ±50ppm
'I' .... temperature range: I = (-10 +60)°C

***Load capacitance** .... A: 8pF, B: 9pF, C: 10pF, D: 12pF, F: 16pF, G: 18pF, H: 20pF, J: 32pF, S: series*
***Adjustment tolerance** .... E: ±30ppm, G: ±50ppm, H: ±100ppm*
***Temperature tolerance** .... A: ±5ppm, B: ±10ppm, P: ±15ppm, C: ±20ppm, E: ±30ppm, G: ±50ppm, H: ±100ppm*
***Temperature range** .... I: (-10 +60)°C, C: (-20 +70)°C, L: (-40 +85)°C*

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ISO9001: 2008
RS13124
ISO14001: 2004
EMS53965

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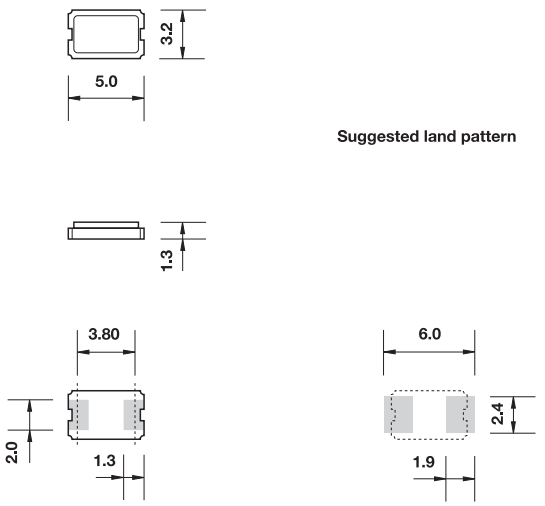
XS dimensions(mm) shown twice full size



ESR - equivalent series resistance

frequency range(MHz)	cut/mode	esr(Ω)
(10.0 ~ 16.0)	AT1	<150
(16.0 ~ 20.0)	AT1	<100
(20.0 ~ 30.0)	AT1	<70
(30.0 ~ 50.0)	AT1	<50

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ISO9001: 2008
RS1312
ISO14001: 2004
EMS5396