actual size

SMQ series • JXS 53

surface mount quartz crystal

- **features**
- high frequency stability type
- ceramic/metal package

type	**JXS 53**
frequency	16.0 ~ 30.0 MHz (fund. AT-cut)
frequency tolerance at 25 °C	± 10 ppm
frequency temperature characteristic	± 4 ppm
operating temperature range	-10 °C ~ +60 °C
storage temperature	-40 °C ~ +90 °C
load capacitance C_L	12 pF ~ 32 pF, series
shunt capacitance C_0	< 7 pF
drive level max.	100 µ W
aging	< ± 3 ppm

order information example

Q - 20.0 - JXS 53 - 12 - 10 / 4

1. 2. 3. 4. 5. 6.

1.	quartz:	Q
2.	frequency:	20.0 MHz
3.	type:	JXS 53
4.	load capacitance:	12 pF
5.	frequency tolerance at 25 °C:	± 10 ppm
6.	frequency temp. charact.:	± 4 ppm

marking:

1. line = frequency with load capacitance code
2. line = company code / date code

date code: year/month **example:** OA = 2000 January

Jan.	Febr.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
A	B	C	D	E	F	G	H	J	K	L	M

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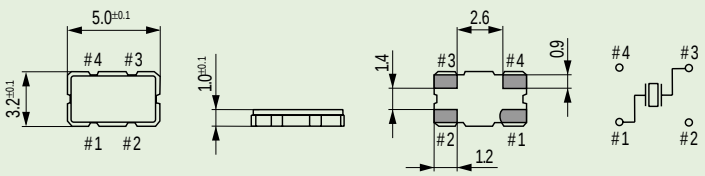
The pulse of progress

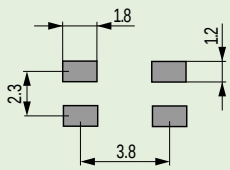
SMQ series • JXS 53

dimensions



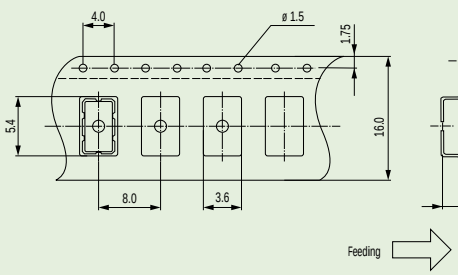
top view side view bottom view top view

pad layout



in mm

taping specification



1000 pcs per reel

in mm

test conditions:

a) acceleration:	1000 g / 0.5 ms, 1/2 sine wave
b) shock (random drop):	height 75 cm, 3 times to hardwood surface
	($\Delta R/R \leq 20\%$; $\Delta f/f \leq \pm 5$ ppm)
c) vibration:	f = 10 Hz ~ 55 Hz; amplitude = 1.5 mm;
	period = about 1 minute; time = 2 h each direction
d) solderability:	according to DIN 68-2-58

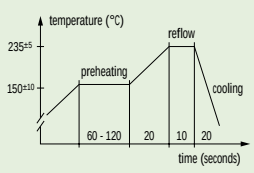
series resistance (Rs) / motional capacitance (C_1) table

frequency in MHz	cut	vibration mode	Rs max. in Ω	Rs typ. in Ω	C_1 typ. in fF
16.0 ~ 30.0	AT	fund	40	20	8

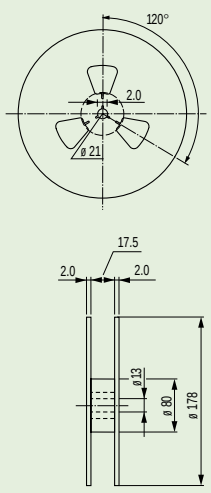
standard load capacitance codes

12 pF:	a	24 pF:	d
16 pF:	b	30 pF:	.
18 pF:	f	32 pF:	e
20 pF:	c	series:	s
22 pF:	g		

reflow soldering profile



reel dimensions



in mm

Quartz Crystals

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