



actual size

SMD Quartz Crystal · J49SMH

- 2 pad version, 11.5 x 4.8 mm
- low cost SMD type
- reflow soldering temperature: 260 °C max.
- package height 4.0 mm max.



RoHS compliant



Pb free



REACH
compliant



Conflict
mineral free

GENERAL DATA

TYPE	J49SMH
frequency range	4.0 MHz
	8.0 MHz
	12.0 MHz
	16.0 MHz
	20.0 MHz
	24.0 MHz
	25.0 MHz
frequency tolerance at 25 °C	±30 ppm
load capacitance C_L	12 pF / 18 pF / 30 pF
shunt capacitance C_0	< 5 pF
storage temperature	-40 °C ~ +125 °C
drive level max.	500 µW (100 µW recommended)
aging	< ±5 ppm first year

ESR (SERIES RESISTANCE RS)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
4.0 MHz	fund. - AT	80	60
8.0 MHz	fund. - AT	50	25
12.0 MHz	fund. - AT	35	15
16.0 MHz	fund. - AT	30	10
20.0 MHz	fund. - AT	30	10
24.0 MHz	fund. - AT	30	10
25.0 MHz	fund. - AT	30	10

FREQUENCY STABILITY VS. TEMPERATURE

Stability code

G
±30 ppm

LOAD CAPACITANCE CODES

12 pF : **A**
18 pF : **F**
30 pF : **P**

FREQUENCY TOLERANCE

Frequency tolerance code

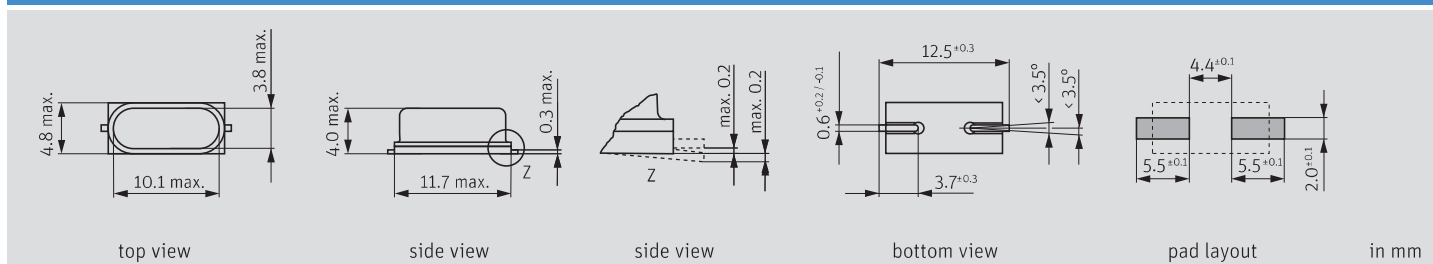
G
±30 ppm

OPERATING TEMPERATURE

Operating temperature code

K
-40°C - +85°C

DIMENSIONS



ORDER INFORMATION

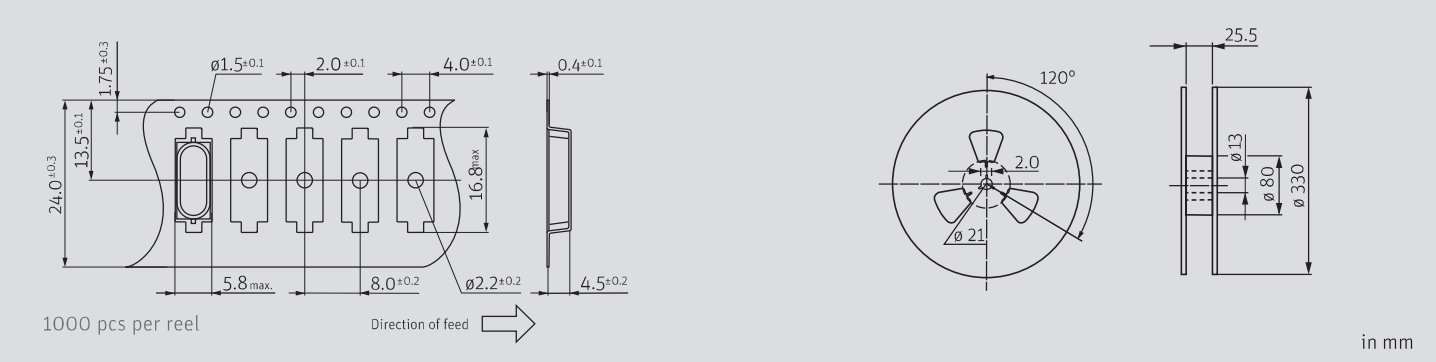
J49SMH-A-G-G-K-4MO	J49SMH-P-G-G-K-12MO	J49SMH-F-G-G-K-24MO
J49SMH-F-G-G-K-4MO	J49SMH-A-G-G-K-16MO	J49SMH-P-G-G-K-24MO
J49SMH-P-G-G-K-4MO	J49SMH-F-G-G-K-16MO	J49SMH-A-G-G-K-25MO
J49SMH-A-G-G-K-8MO	J49SMH-P-G-G-K-16MO	J49SMH-F-G-G-K-25MO
J49SMH-F-G-G-K-8MO	J49SMH-A-G-G-K-20MO	J49SMH-P-G-G-K-25MO
J49SMH-P-G-G-K-8MO	J49SMH-F-G-G-K-20MO	
J49SMH-A-G-G-K-12MO	J49SMH-P-G-G-K-20MO	
J49SMH-F-G-G-K-12MO	J49SMH-A-G-G-K-24MO	

Ordering example:

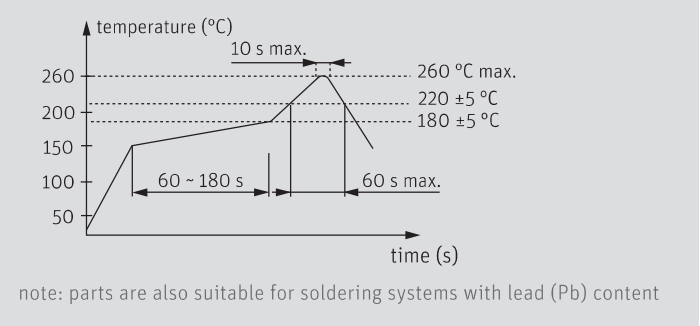
J49SMH-A-G-G-K-4MO J49SMH, 12pF Load Capacitance, 30ppm Freq tolerance, 30ppm Freq stability, -40-85 operating temp, 4MHz

SMD Quartz Crystal · J49SMH

TAPING SPECIFICATION



REFLOW SOLDERING PROFILE



MARKING

frequency with load capacitance code
company code / date code / internal code

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2019	a	b	c	d	e	f	g	h	j	k	l	m
2020	n	p	q	r	s	t	u	v	w	x	y	z
2021	A	B	C	D	E	F	G	H	J	K	L	M
2022	N	P	Q	R	S	T	U	V	W	X	Y	Z