



actual size

JAG32P4 · AEC-Q200

4 Pad Version · 3.2 x 2.5 mm

- AEC-Q200 qualified
- recommended for automotive applications
- reflow soldering temperature: 260 °C max.
- ceramic package



General Data

type	JAG32P4		
frequency range	12.0 ~ 50.0 MHz	(fund. AT-cut)	lower frequencies upon request
frequency stability at 25 °C	± 30 ppm, ± 50 ppm		
load capacitance C _L	12 pF standard	(option: 10 pF ~ 30.0 pF / series)	
shunt capacitance C ₀	7 pF max.		
storage temperature	-40 °C ~ +125 °C		
shock resistance	> 100 g	(half sine pulse, 6.0 ms)	
drive level max.	100 µW	(10 µW recommended)	
aging	< ± 3 ppm first year		

ESR (series resistance R_s)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
12.0 ~ 12.999	fund.-AT	200	90
13.0 ~ 13.999	fund.-AT	150	70
14.0 ~ 15.999	fund.-AT	100	40
16.0 ~ 18.999	fund.-AT	80	35
19.0 ~ 21.999	fund.-AT	70	30
22.0 ~ 29.999	fund.-AT	70	25
30.0 ~ 50.000	fund.-AT	50	20

Frequency Stability vs. Temperature

		± 30 ppm	± 50 ppm	± 100 ppm		
-20 °C ~ +70 °C	STD.	○	○	○		
-40 °C ~ +85 °C	T1	○	○	○		
-40 °C ~ +105 °C	T2		○	○		
-40 °C ~ +125 °C	T3			○		

○ available

Marking

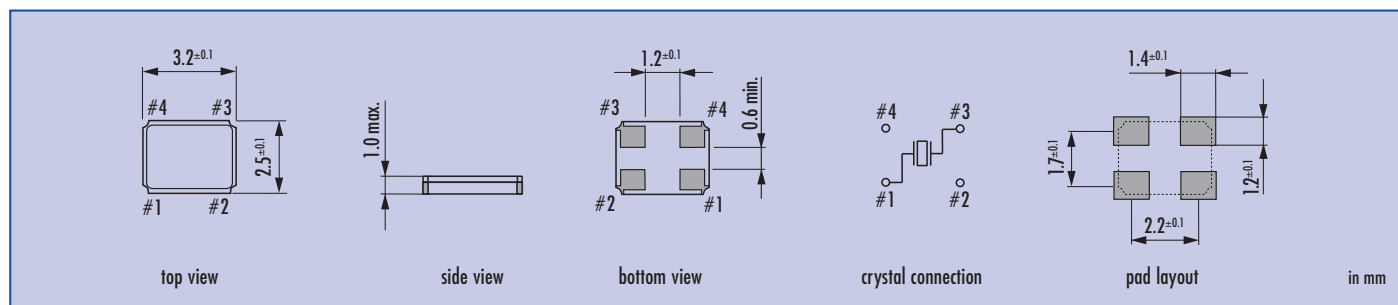
frequency with load capacitance code
company code / date code / internal code

date code: year / month

example: OA = 2010 January

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

Dimensions



Order Information

Q	frequency	type	load capacitance	stability at 25 °C	stability vs. temp. range	option
Quartz	12.0 ~ 54.0 MHz	JAG32P4	12 pF standard 8 pF ~ 32 pF S for series	30 = ± 30 ppm	30 = ± 30 ppm 60 = ± 60 ppm 100 = ± 100 ppm	blank = -20 °C ~ +70 °C T1 = -40 °C ~ +85 °C T2 = -40 °C ~ +105 °C T3 = -40 °C ~ +125 °C

Example: Q 28.0-JAG32P4-12-30/30-T1-FU-LF (Suffix LF = RoHS compliant / Pb free pads)