

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

RoHS 2002/95/EC
RoHS compliant

Pb free: pins / pads

General Data

type	JAG32P4		
frequency range	12.0 ~ 54.0 MHz	(fund. AT-cut)	lower frequencies upon request
frequency stability at 25 °C	± 30 ppm or specify		
load capacitance C_L	8 pF, 10 pF or specify		
shunt capacitance C_0	3 pF max.		
storage temperature	-40 °C ~ +85 °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 Rs)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
12.0 ~ 13.999	fund.-AT	150	90
14.0 ~ 15.999	fund.-AT	100	50
16.0 ~ 18.999	fund.-AT	80	45
19.0 ~ 21.999	fund.-AT	70	35
22.0 ~ 29.999	fund.-AT	70	30
30.0 ~ 54.000	fund.-AT	60	25

Frequency Stability vs. Temperature

		± 30 ppm	± 60 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

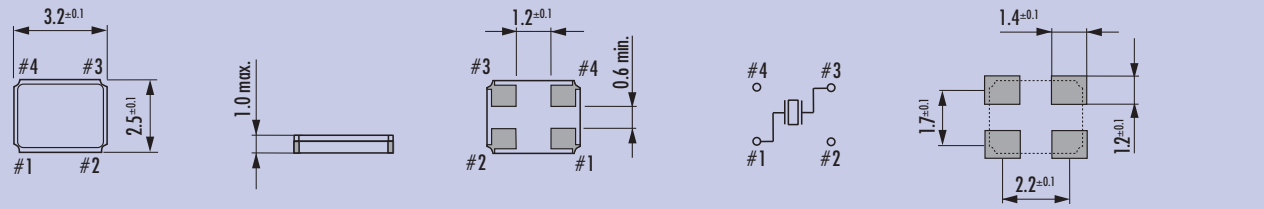
frequency with load capacitance code
company code / date code / internal code

date code: year / month
example: 9A = 2009 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



top view | side view | bottom view | crystal connection | pad layout | in mm

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)

All specifications are subject to change without notice