



actual size

# JAG53P2 · AEC-Q200

2 Pad Version · 5.0 x 3.2 mm

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



## General Data

type	JAG53P4	
frequency range	8.0 ~ 50.0 MHz	(fund. AT-cut)
	45.0 ~ 60.0 MHz	(3rd OT AT-cut)
frequency stability at 25 °C	± 30 ppm, ± 50 ppm	
load capacitance $C_L$	12 pF standard	(option: 10 pF ~ 30 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 Rs)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
8.0 ~ 8.999	fund.-AT	300	120
9.0 ~ 9.999	fund.-AT	250	100
10.0 ~ 11.999	fund.-AT	60	35
12.0 ~ 15.999	fund.-AT	60	25
16.0 ~ 21.999	fund.-AT	50	20
22.0 ~ 24.999	fund.-AT	40	20
25.0 ~ 50.000	fund.-AT	30	20
45.0 ~ 60.000	3rd OT-AT	90	65

## 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

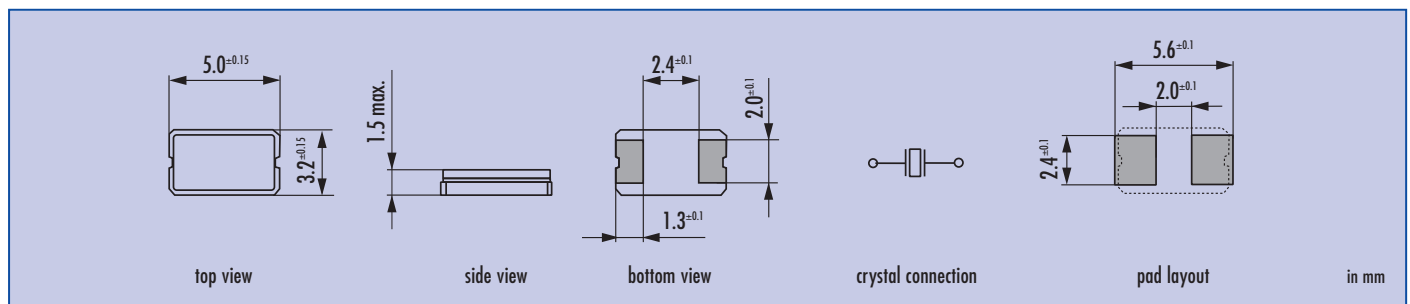
example: 0A = 2010 January

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	8.0 ~ 60.0 MHz	JAG53P2	12 pF standard 10 pF ~ 32 pF S for series	30 = ± 30 ppm 50 = ± 50 ppm	30 = ± 30 ppm 60 = ± 100 ppm 100 = ± 100 ppm	blank = -20 °C ~ +70 °C T1 = -40 °C ~ +85 °C T2 = -40 °C ~ +105 °C T3 = -40 °C ~ +125 °C FU = for fundamental frequencies ≥ 20 MHz 3OT = 3rd overtone

Example: Q 28.0-JAG53P2-12-30/30-T1-FU-LF (Suffix LF = RoHS compliant / Pb free pads)

