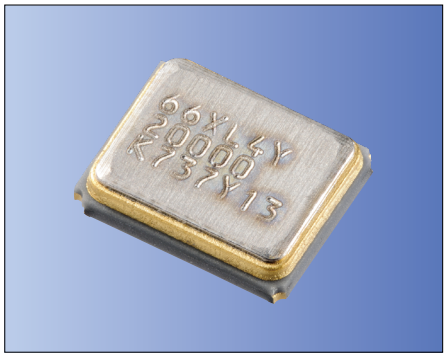
Crystal Units
Surface Mount Type CX2016SA

2.0 × 1.6mm for Automotive



AEC-Q200 PSL: R4Y

RoHS Compliant MSL1

How to Order

CX2016SA 25000 D0 G S S HH
① ② ③④ ⑤ ⑥ ⑦ ⑧

①Series (Type and Size)
②Frequency (16,000 to 60,000kHz)
③④Load Capacitance (Unit:pF) Ex.: D1:8.1pF

③Integer part	
D	8
E	9
F	10
G	11
H	12
Z	Special suffix

④After the decimal point	
0	.0
1	.1
2	.2
3	.3
4	.4
5	.5
6	.6
7	.7
8	.8
9	.9

Packaging
(Tape & Reel 3000/ 15000 pcs./ reel)

⑤Frequency Tolerance

F	±10×10⁻⁶
G	±15×10⁻⁶
H	±20×10⁻⁶
J	±25×10⁻⁶
K	±30×10⁻⁶
M	±40×10⁻⁶
P	±50×10⁻⁶
W	All Over
Z	Special suffix

Features

- Support a wide range of applications
- Miniature and low profile
  (2.05 × 1.65 × 0.45mm)
- Ceramic package
- Reflow compatible

Applications

- Automotive (ECU, Automotive Camera)

⑥Operating Temp. Range ⑦Frequency Temp. Stability

⑥ \ ⑦		J ±15ppm	L ±20ppm	Q ±30ppm	R ±40ppm	S ±50ppm	T ±100ppm	V ±150ppm	W ±200ppm
L	-30 to 85°C	✓	✓	✓	✓	✓	✓	✓	✓
P	-40 to 85°C		✓	✓	✓	✓	✓	✓	✓
R	-40 to 105°C			✓	✓	✓	✓	✓	✓
S	-40 to 125°C					✓	✓	✓	✓
T	-40 to 150°C						✓	✓	✓

⑧Individual Specification (STD Specification are "HH" and "JJ" *.)
* "JJ" is made overseas. Please contact us for supported frequencies.

Specifications

Item	Symbol	Specification			Unit	Remarks
Frequency Range	f_nom	16000 to 60000			kHz	Please contact us for other frequency range.
Overtone Order	OT	Fundamental			—	
Load Capacitance	CL	8			pF	Please contact us for other CL requirements.
Frequency Tolerance	f_tol	±15			×10⁻⁶	25° C ± 3° C
Motional Series Resistance	R1	Table 1			ohm	
Drive Level	DL	10μW(200μW max.)			μW	
Operating Temp. Range	T_use	−40 to +125	−40 to +150	−30 to +85	°C	
Storage Temp. Range	T_stg	−40 to +150			°C	
Frequency Temp. Characteristics	f_tem	±50	±200	±20	×10⁻⁶	Freq. deviation from the value at 25° C
Shunt capacitance	C0	2.0max.			pF	

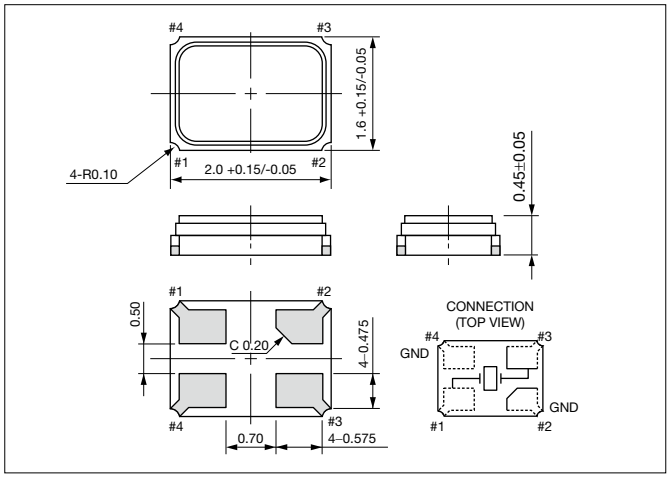
Please contact us for other specifications.

◆Table 1
Motional Series Resistance ESR (C1)

Frequency (MHz)	ESR (Ohm)
16≦F<18	200
18≦F<20	150
20≦F<24	100
24≦F<26	80
26≦F<40	60
40≦F≦60	50

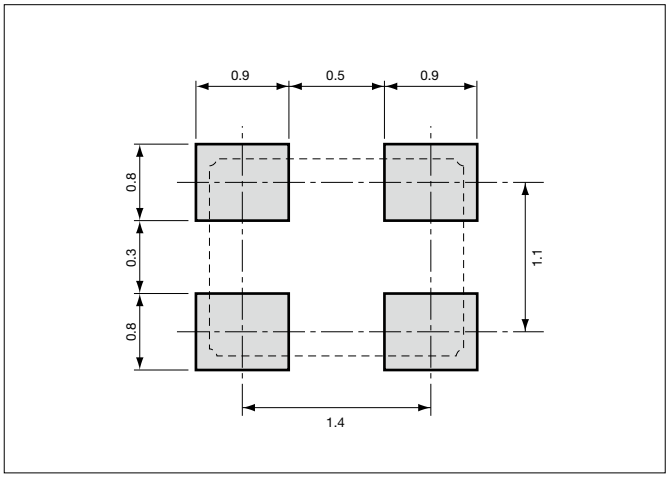
Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)



As of October 2025

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