

# CRYSTAL UNITS

Automotive Grade

CXAFA-013

CERAMIC PACKAGE

ACTUAL SIZE: 

## APPLICATIONS

- ▶ Camera
- ▶ TPMS
- ▶ AVM

## FEATURES

- ▶ Seam Seal
- ▶ Excellent Solderability
- ▶ Excellent Vibration Resistance & Shock Resistance
- ▶ High Frequency Stability
- ▶ Excellent Thermal Hysteresis
- ▶ RoHS Compliant
- ▶ IATF-16949 Certified
- ▶ AEC-Q200 Qualified

## Specification

### MODEL

DIMENSION	( mm )	3.20 X 2.50
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### FREQUENCY

FREQUENCY RANGE ( Fundamental )	MHz	8.000 ~ 64.000
FREQUENCY RANGE ( 3rd Overtone )	MHz	60.000 ~ 156.250
FREQUENCY TOLERANCE ( 25°C )	ppm	± 10 ~ ± 100
FREQUENCY STABILITY ( Ref to 25°C )	ppm	± 20 ~ ± 100

### ENVIRONMENTAL CONDITION

OPERATING TEMPERATURE RANGE	°C	- 40 ~ + 85 Or - 40 ~ + 125	- 55 ~ + 125
STORAGE TEMPERATURE RANGE	°C	- 55 ~ + 150	
AGING / YEAR	ppm	± 3	

### ELECTRICAL SPECIFICATIONS

TEST CIRCUIT		S&A 250B With π Fixture
LOAD CAPACITANCE	pF	SERIES, 6pF to 47pF, or Specify
DRIVE LEVEL	uW	15, 30, 50, 100, 200 or special requirement
EQUIVALENT SERIES RESISTANCE	Ω	See Table
SHUNT CAPACITANCE	pF	3.0 Max.

\*Specification subject to change without notice.

## Equivalent Series Resistance ( Ω )

Frequency Range	Mode of Operation	ESR
8.000 ~ 9.999	Fundamental	300Ω Max.
10.000 ~ 11.999	Fundamental	150Ω Max.
12.000 ~ 15.999	Fundamental	80Ω Max.
16.000 ~ 19.999	Fundamental	60Ω Max.
20.000 ~ 24.999	Fundamental	50Ω Max.
25.000 ~ 39.999	Fundamental	40Ω Max.
40.000 ~ 64.000	Fundamental	30Ω Max.
60.000 ~ 124.999	3rd Overtone	100Ω Max.
125.000 ~ 156.250	3rd Overtone	80Ω Max.

## Dimension(mm)

### CXAFA

