

# **CRYSTAL UNITS**

Automotive Grade

**CXAF-012** 

### CERAMIC PACKAGE



#### **APPLICATIONS**

- ▶ Camera
- ► TPMS
- ▶ AVM

## **FEATURES**

ACTUAL SIZE:

- ▶ 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	
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	± 50 ~ ± 100
ENVIRONMENTAL CONDITION	3.		
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 Speci	fy
DRIVE LEVEL	uW	15, 30, 50, 100, 200 or special requirement	
EQUIVALENT SERIES RESISTANCE	Ω	See Table	
SHUNT CAPACITANCE	pF	3.0 Max.	

<sup>\*</sup>Specification subject to change without notice.

## Equivalent Series Resistance ( $\Omega$ )

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. 40Ω Max.
25.000 ~ 39.999	Fundamental	
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)

#### CXAF



