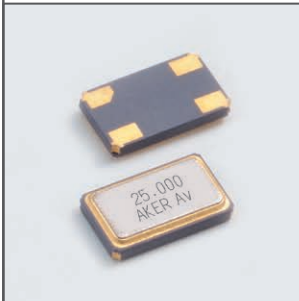


# CRYSTAL UNITS- Automotive Grade



## CXF-631 SERIES

CERAMIC PACKAGE

### Applications

- Camera
- Media
- TPMS

### Features

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

• Actual Size:

### Specification

#### MODEL

DIMENSION	(mm)	6.00 x 3.50
FREQUENCY		
FREQUENCY RANGE (Fundamental)	MHz	8.000 ~ 52.000
FREQUENCY RANGE (3rd Overtone)	MHz	40.000 ~ 133.000
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
STORAGE TEMPERATURE RANGE	°C	- 55 ~ + 150
AGING / YEAR	ppm	± 3
ELECTRICAL SPECIFICATIONS		
TEST CIRCUIT		S&A 350A With $\pi$ Fixture
LOAD CAPACITANCE		SERIES, 6pF to 47pF, or Specify
DRIVE LEVEL	$\mu$ W	15, 30, 50, 100, 200, 500 or special requirement
EQUIVALENT SERIES RESISTANCE	$\Omega$	See Table
SHUNT CAPACITANCE	pF	7.0 (Max.)

### Equivalent Series Resistance ( $\Omega$ )

Frequency Range	Mode of Operation	ESR
8.000 ~ 10.000	Fundamental	150 $\Omega$ Max.
10.001 ~ 12.000	Fundamental	80 $\Omega$ Max.
12.001 ~ 15.000	Fundamental	60 $\Omega$ Max.
15.001 ~ 20.000	Fundamental	50 $\Omega$ Max.
20.001 ~ 30.000	Fundamental	40 $\Omega$ Max.
30.001 ~ 40.000	Fundamental	30 $\Omega$ Max.
40.001 ~ 52.000	Fundamental	20 $\Omega$ Max.
40.000 ~ 52.000	3rd Overtone	100 $\Omega$ Max.
52.001 ~ 80.000	3rd Overtone	80 $\Omega$ Max.
80.001 ~ 133.000	3rd Overtone	70 $\Omega$ Max.

### Dimension(mm)

#### CXF-631

