

C2220X156K5RACTU

Aliases (C2220X156K5RAC7800)

SMD Comm X7R Flex, Ceramic, 15 uF, 10%, 50 VDC, X7R, SMD, MLCC, FT-CAP, Temperature Stable, 3.5 mm, 2220 / 5651



Click [here](#) for the 3D model.

General Information

Series	SMD Comm X7R Flex
Style	SMD Chip
Description	SMD, MLCC, FT-CAP, Temperature Stable
Features	FT-CAP, Temperature Stable
RoHS	Yes
Termination	Flexible Termination
Marking	No
AEC-Q200	No
Typical Component Weight	390 mg
Shelf Life	78 Weeks
MSL	1

Specifications

Capacitance	15 uF
Measurement Condition	120 Hz 0.5Vrms
Tolerance	10%
Voltage DC	50 VDC
Dielectric Withstanding Voltage	125 VDC
Temperature Range	-55/+125°C
Temp. Coefficient	X7R
Capacitance Change with Reference to +25°C and 0 VDC Applied (TCC)	15%, 120Hz 0.5Vrms
Dissipation Factor	2.5% 120 Hz 0.5Vrms
Aging Rate	3% Loss/Decade Hour: Referee Time is 1000 Hours
Insulation Resistance	33.3 MOhms

Dimensions

L	5.9mm +/-0.75mm
W	5mm +/-0.4mm
T	2.4mm +/-0.15mm
S	3.5mm MIN
B	0.7mm +/-0.35mm
Case Code (EIA / mm)	2220 / 5651

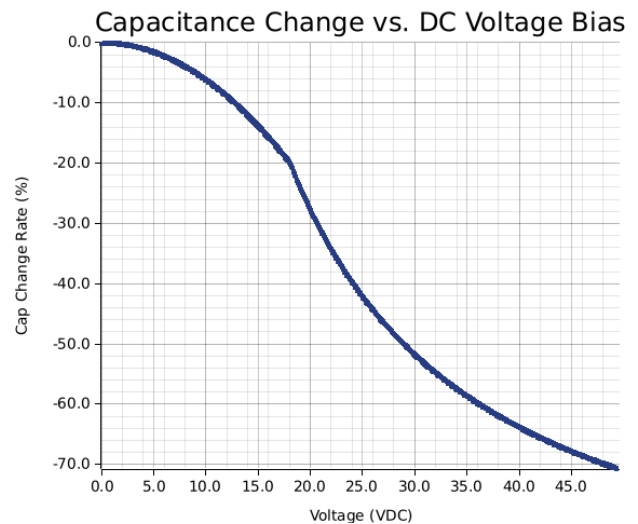
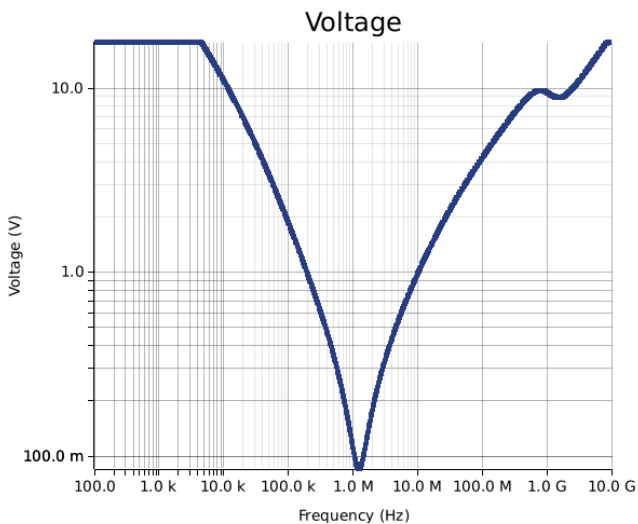
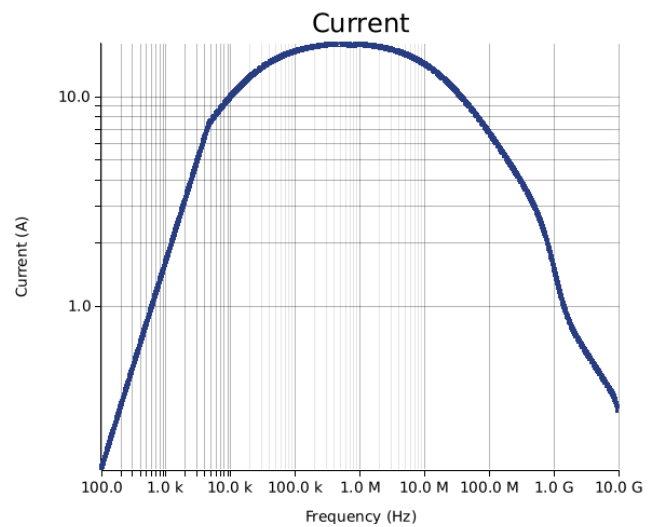
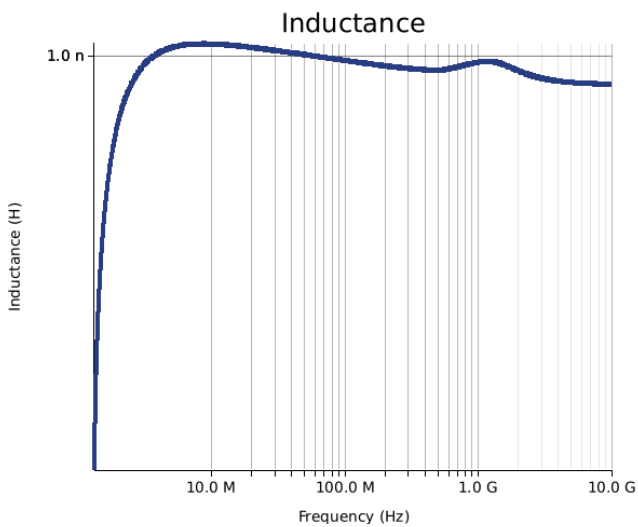
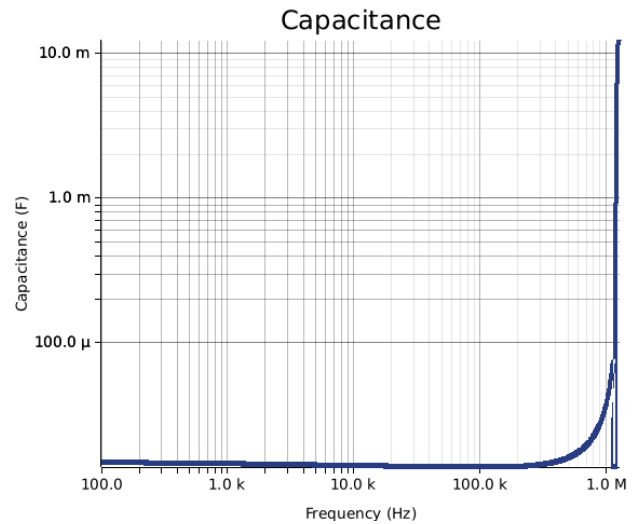
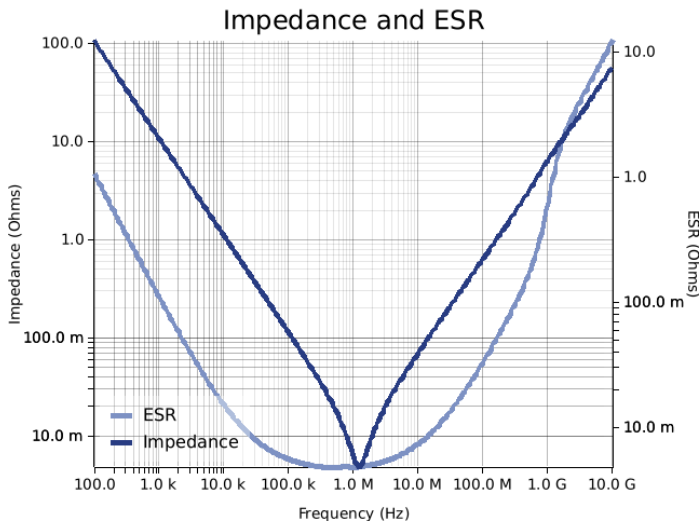
Packaging Specifications

Packaging	T&R, 180mm, Plastic Tape
Packaging Quantity	500

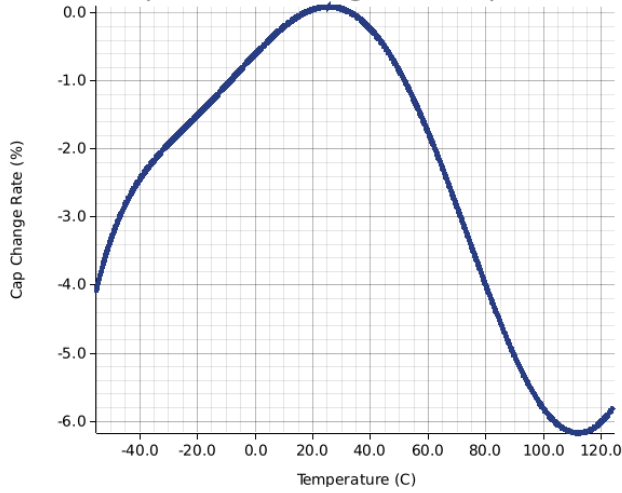
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Simulations

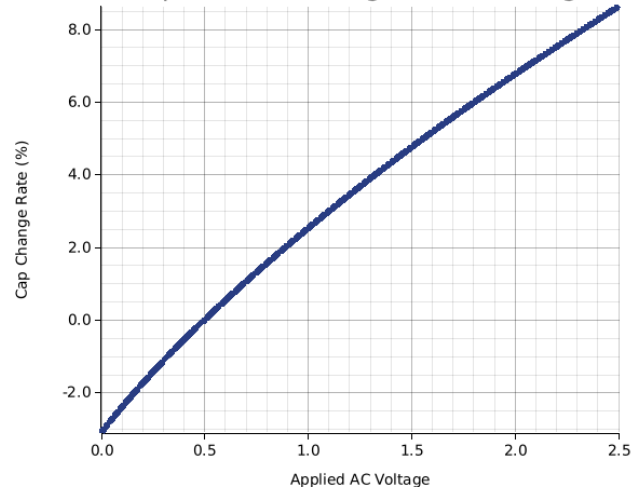
For the complete simulation environment please visit [Y-SIM](#).



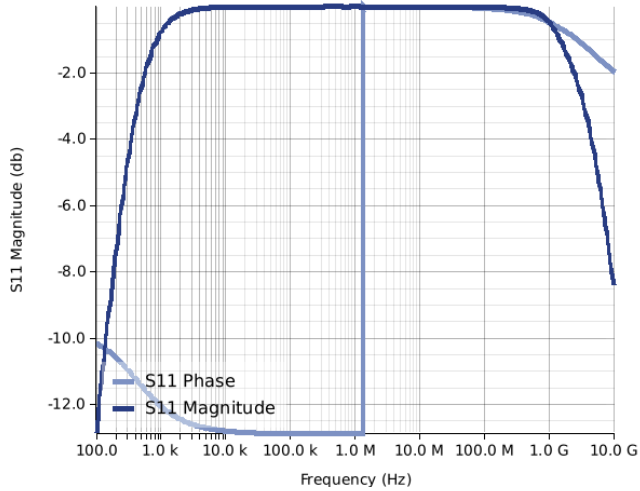
Capacitance Change vs. Temperature



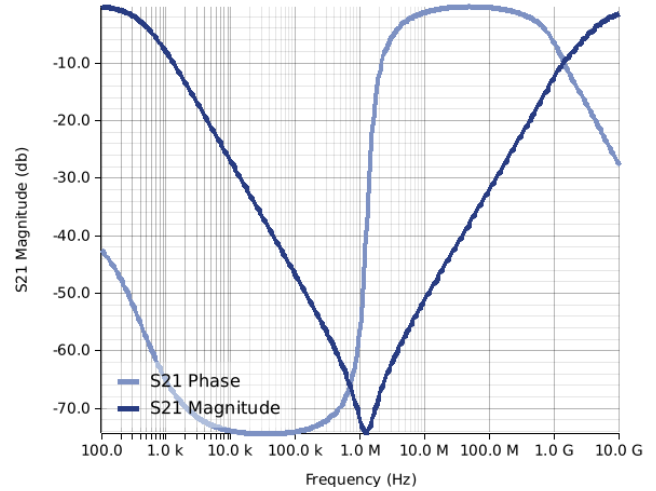
Capacitance Change vs. AC Voltage



S11



S21



These are simulations.
This is not a specification!

The responses shown represent the typical response for each part type. Specific responses may vary, depending on manufacturing variation effects of all parameters involved, including the specified tolerances applied to capacitance and unspecified variations of ESR, ESL, and leakage resistance.

The responses shown do not represent a specified or implied maximum capability of the device for all applications.

- The ESR used for ripple "Ripple Current/Voltage vs. Frequency" plots is the ESR at ambient temperature.
- The ESR in the "Temperature Rise vs. Ripple Current" plots is adjusted to each incremental temperature rise before the power and ripple current is calculated.
- The effects shown herein are based on measured data from a multiple part sample of the parts in question.
- Ripple capability of this device will be factored by thermal resistance (Rth) created by circuit traces (addi affects of all parameters involved, including the specified tolerances applied to capacitance and unspecified variations of ESR, ESL, and leakage resistance).
- The peak voltages generated in the "Temperature Rise vs. Combined Ripple Currents" plot are calculated for each frequency and are not combined with voltages generated at any other harmonics.
- Please consult with the catalog or field applications engineer for maximum capability of the device in specific applications.

All product information and data (collectively, the "Information") are subject to change without notice.

KEMET K-SIM is designed to simulate behavior of components with respect to frequency, ambient temperature, and DC bias levels. The responses shown represent the typical response for each part type. Specific responses may vary, depending on manufacturing variation effects of all parameters involved, including the specified tolerances applied to capacitance and unspecified variations of ESR, ESL, and leakage resistance.

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