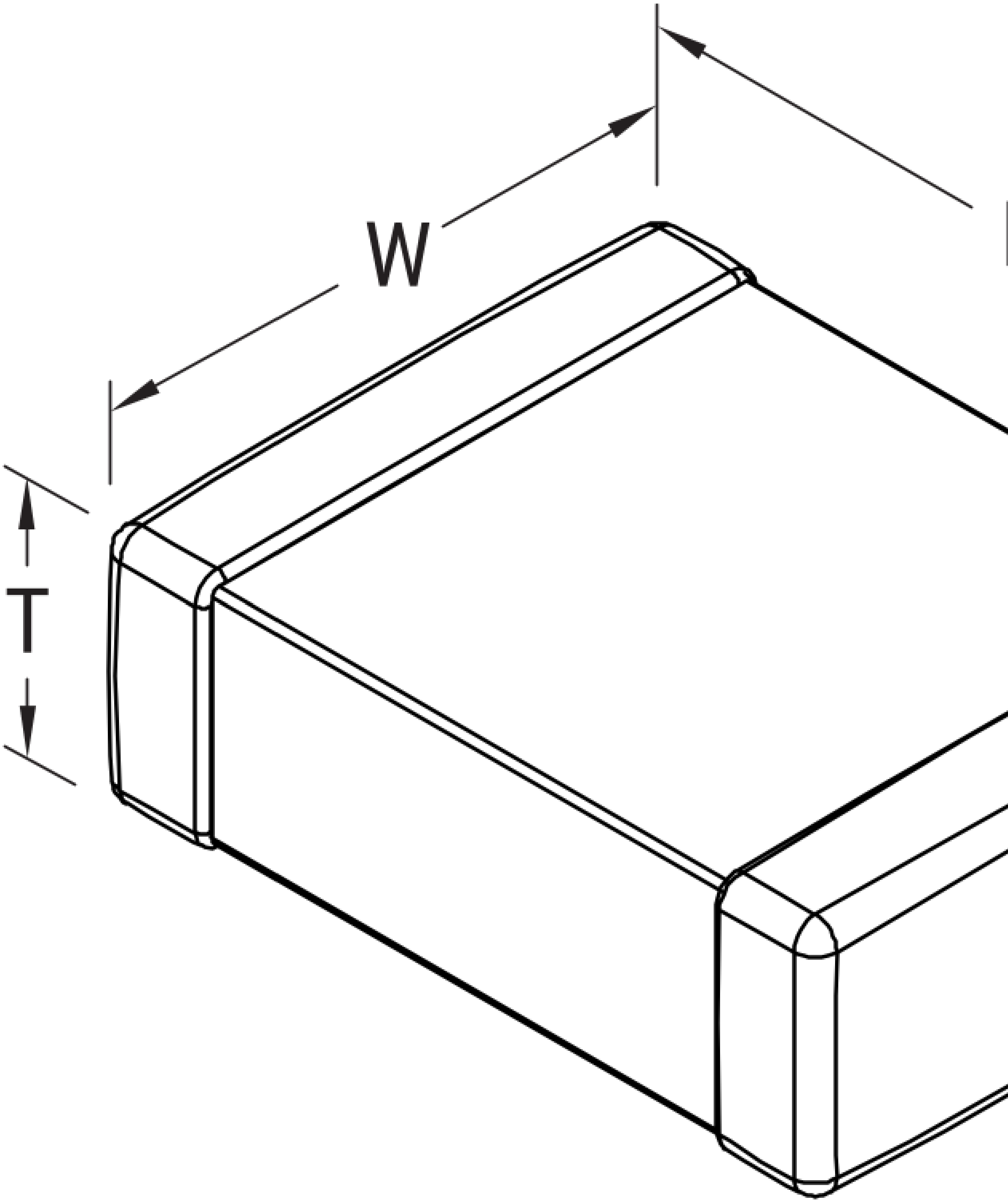
C1206C391G1GACTU

Aliases (C1206C391G1GAC7800)

SMD Comm C0G, Ceramic, 390 pF, 2%, 100 VDC, C0G, SMD, MLCC, Ultra-Stable, Low Loss, Class I, 1206



Click here for the 3D model.

Dimensions	
Chip Size	1206
L	3.2mm +/-0.2mm

Dimensions

W	1.6mm +/-0.2mm
T	0.78mm +/-0.10mm
B	0.5mm +/-0.25mm

Packaging Specifications

Packaging	T&R, 180mm, Plastic Tape
Packaging Quantity	4000

General Information

Series	SMD Comm C0G
Style	SMD Chip
Description	SMD, MLCC, Ultra-Stable, Low Loss, Class I
Features	Ultra-Stable, Low Loss, Class I
RoHS	Yes
Termination	Tin
Marking	No
AEC-Q200	No
Component Weight	15 mg
Shelf Life	78 Weeks
MSL	1

Specifications

Capacitance	390 pF
Measurement Condition	1 MHz 1.0Vrms
Capacitance Tolerance	2%
Voltage DC	100 VDC
Dielectric Withstanding Voltage	250 VDC
Temperature Range	-55/+125°C
Temperature Coefficient	C0G
Capacitance Change with Reference to +25°C and 0 VDC Applied (TCC)	30 ppm/C, 1MegaHz 1.0Vrms
Dissipation Factor	0.1% 1 MHz 1.0Vrms
Aging Rate	0% Loss/Decade Hour
Insulation Resistance	100 GOhms

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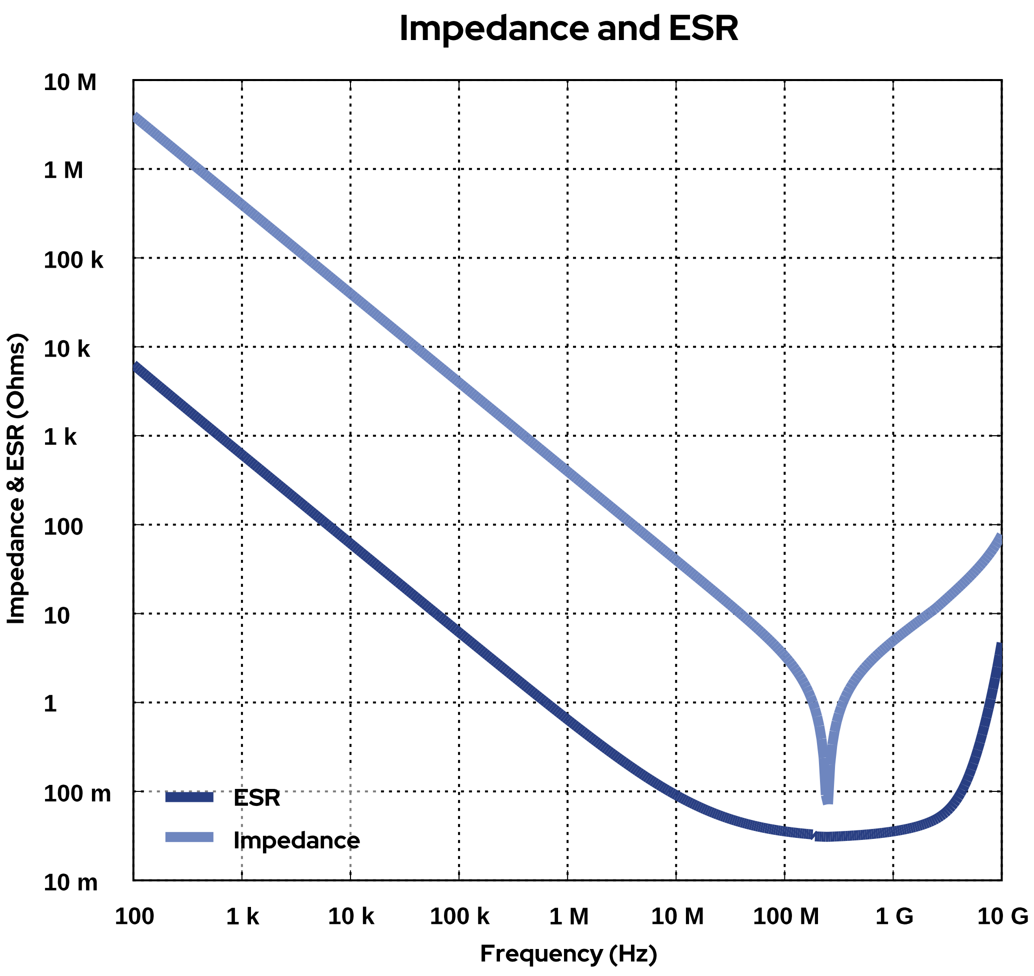
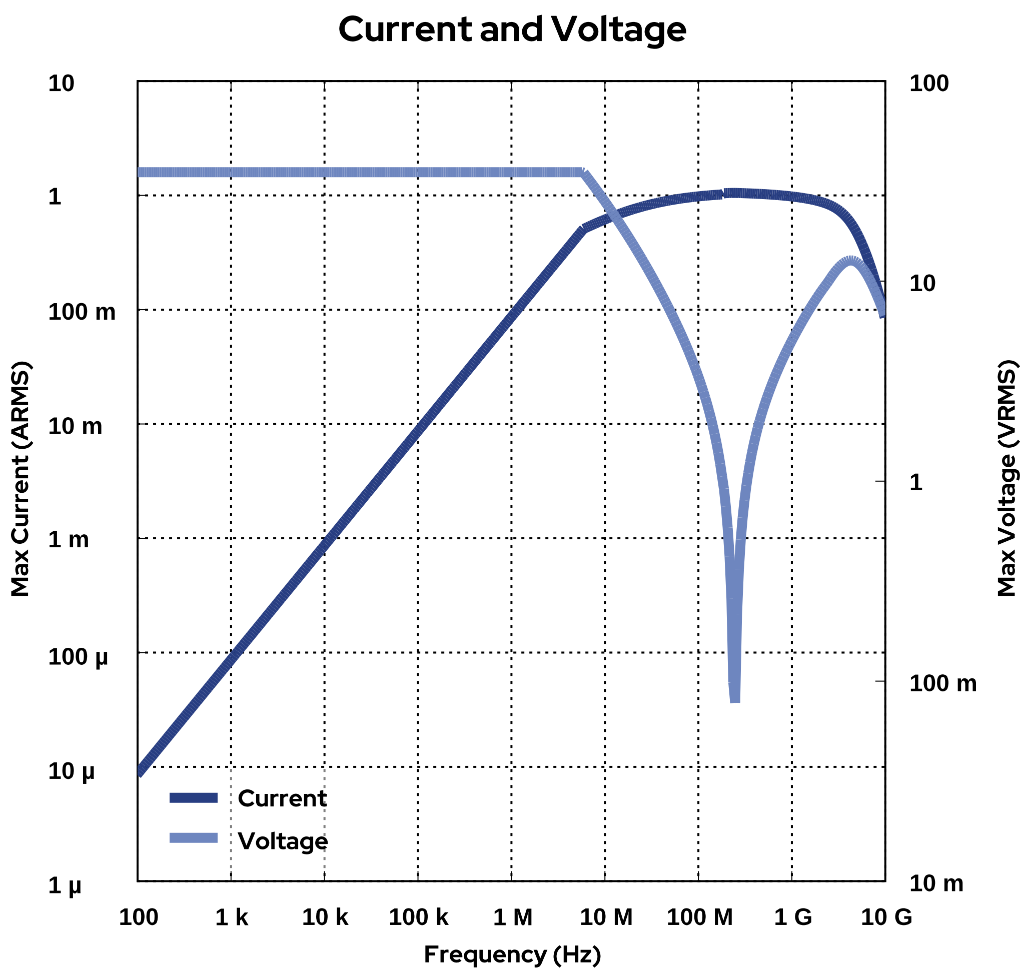
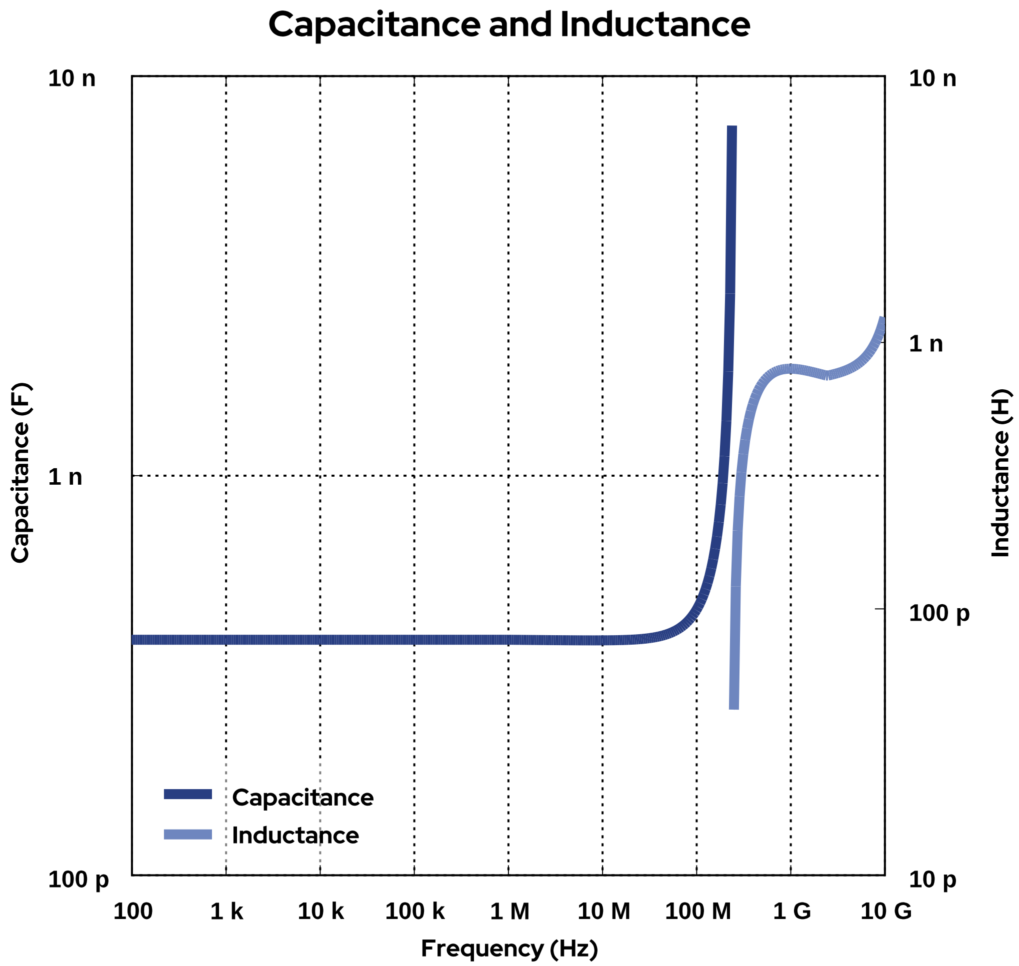
Simulations

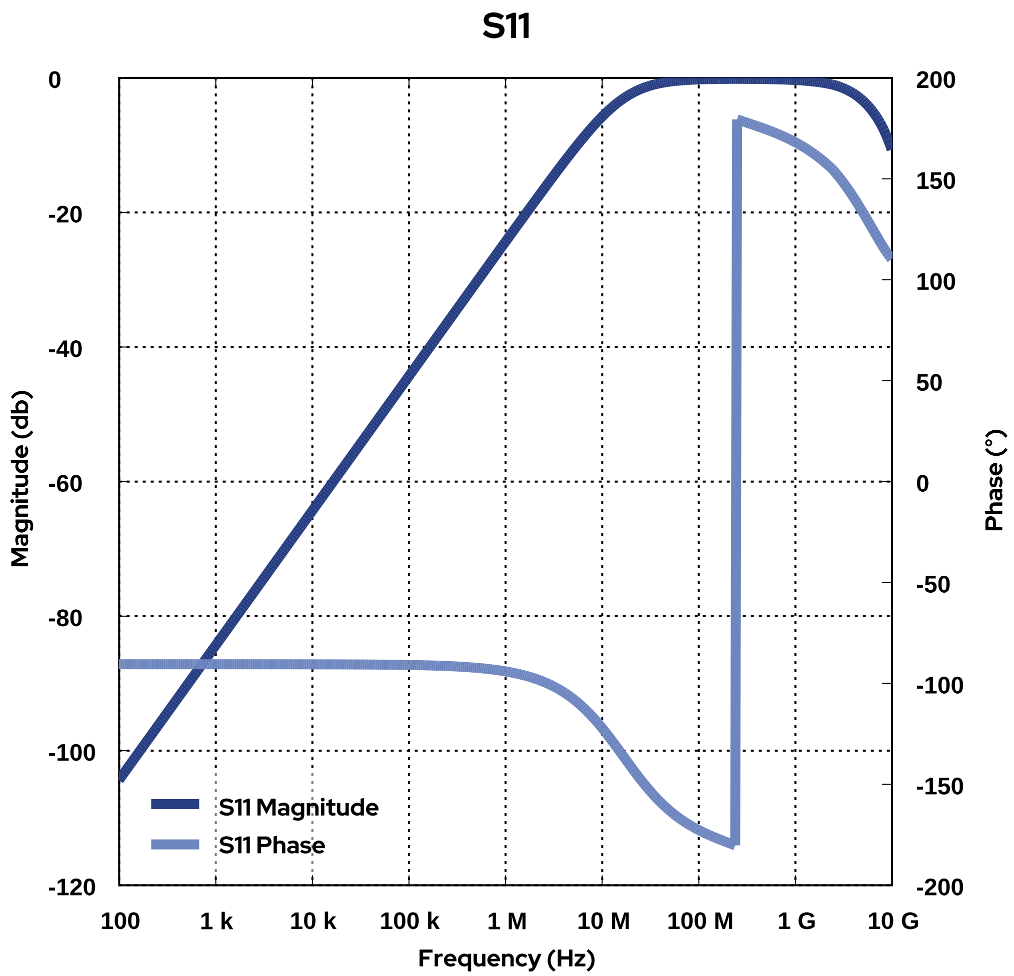
For the complete simulation environment please visit K-SIM.

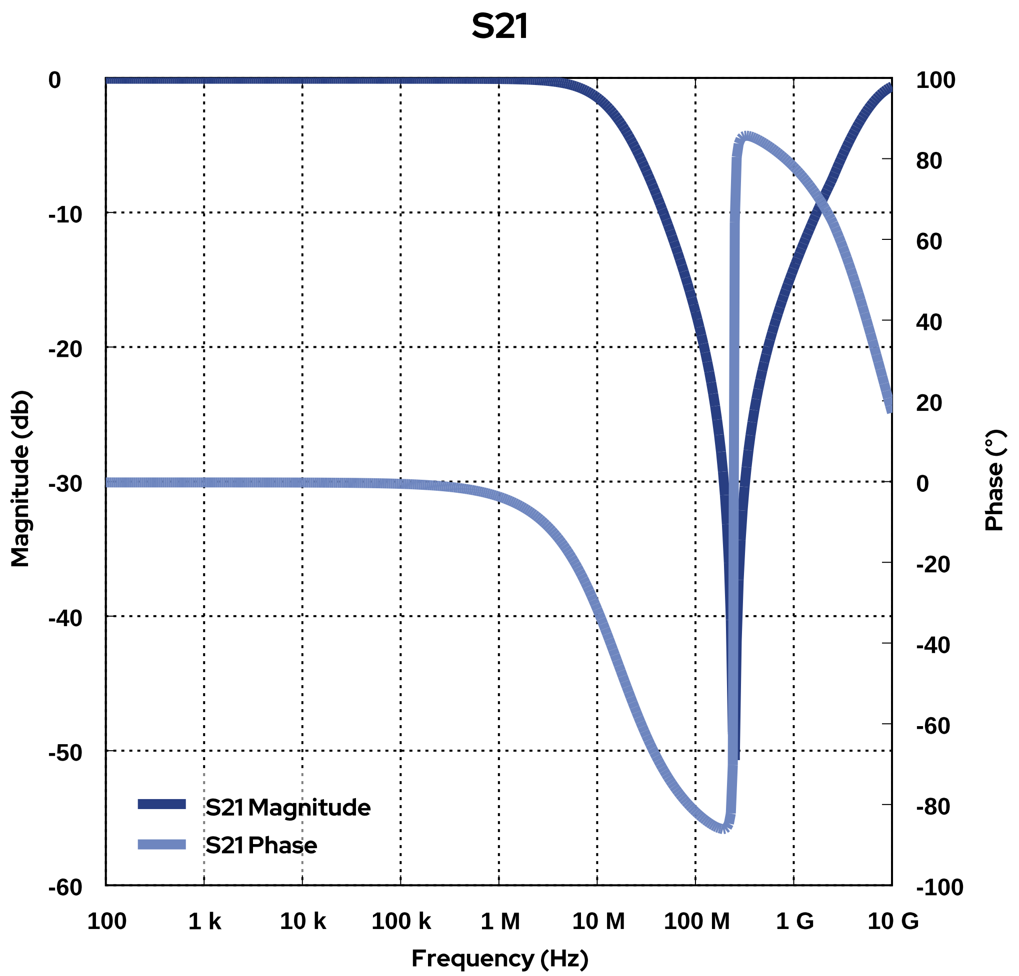



Current and Voltage
10
1
100 m
10 m
1 m
100 µ
10 µ
1 µ
Max Current (ARMS)
100
10
1
100 m
10 m
Max Voltage (VRMS)
100
1 k
10 k
100 k
1 M
10 M
100 M
1 G
10 G
Frequency (Hz)
Current
Voltage



Capacitance and Inductance
10 n
1 n
100 p
Capacitance (F)
10 n
1 n
100 p
10 p
Inductance (H)
100
1 k
10 k
100 k
1 M
10 M
100 M
1 G
10 G
Frequency (Hz)
Capacitance
Inductance


S11
0
-20
-40
-60
-80
-100
-120
Magnitude (db)
200
150
100
50
0
-50
-100
-150
-200
Phase (°)
S11 Magnitude
S11 Phase
100
1 k
10 k
100 k
1 M
10 M
100 M
1 G
10 G
Frequency (Hz)



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 affects 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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