



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

Dimensions

Footprint	3528
L	3.5mm +/-0.2mm
W	2.8mm +/-0.2mm
H	1.9mm +/-0.2mm
S	0.8mm +/-0.3mm
F	2.2mm +/-0.1mm

Packaging Specifications

Packaging	T&R, 178mm
Packaging Quantity	2000

General Information

Series	T493 HRA
Dielectric	MnO2 Tantalum
Style	SMD Chip
Description	SMD, MnO2, Molded, DLA Drawing
RoHS	No
Prop 65	⚠ WARNING: Cancer and reproductive harm - http://www.p65warnings.ca.gov
SCIP Number	1dd2e1b8-26dd-4d52-927c-6f9d519011aa
Termination	Solder Coated
AEC-Q200	No
Component Weight	102.3 mg

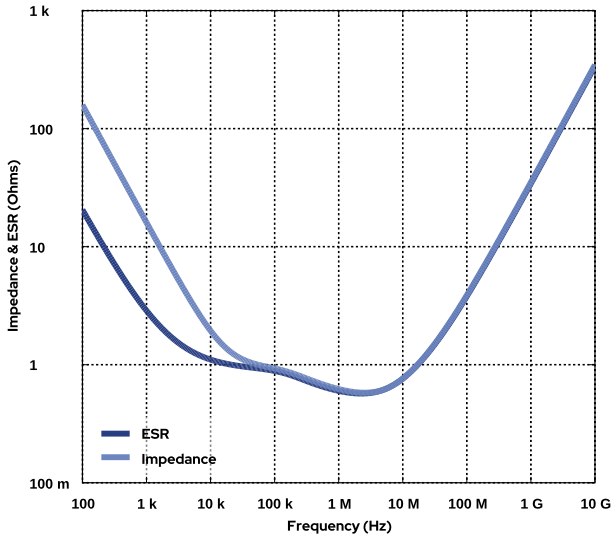
Specifications

Capacitance	10 uF
Capacitance Tolerance	10%
Voltage DC	20 VDC (85C), 13.4 VDC (125C)
Temperature Range	-55/+125°C
Rated Temperature	85°C
Dissipation Factor	6% 120Hz 25C
Failure Rate	N/A
Resistance	3 Ohms (100kHz 25C)
Ripple Current	158 mA (rms, 100kHz 25C)
Leakage Current	2 uA (5min 25°C)
Testing and Reliability	Standard Testing Only

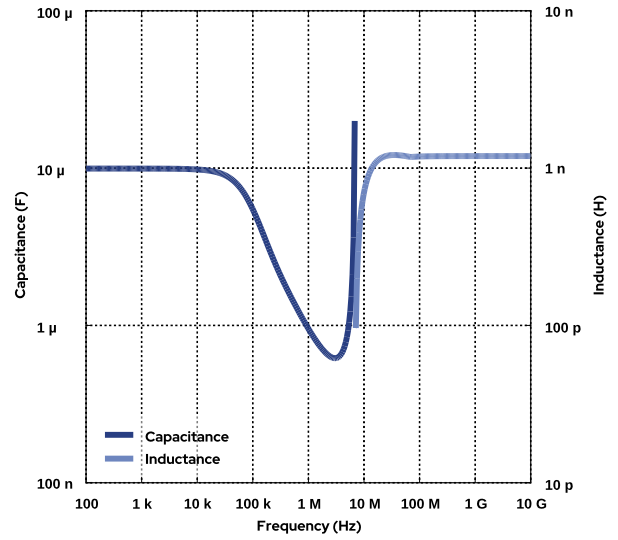
Simulations

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

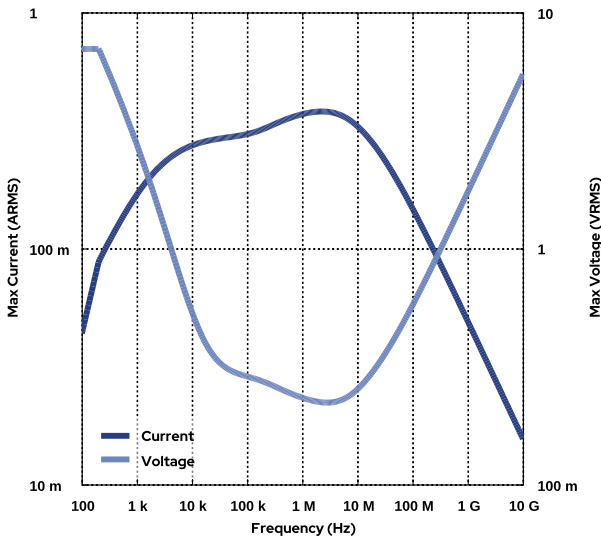
Impedance and ESR



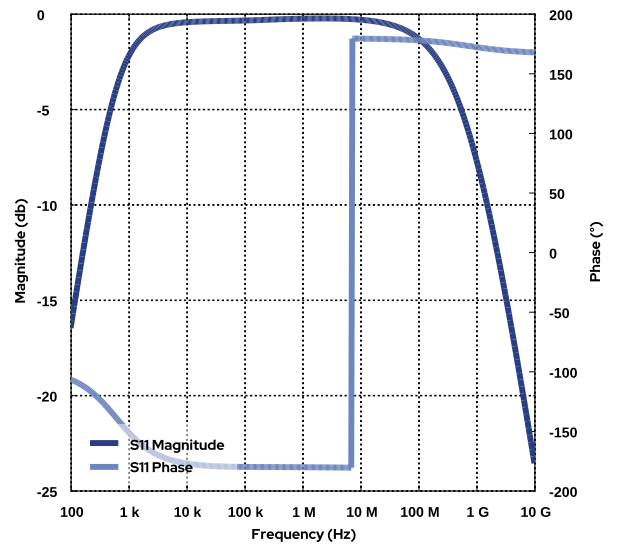
Capacitance and Inductance

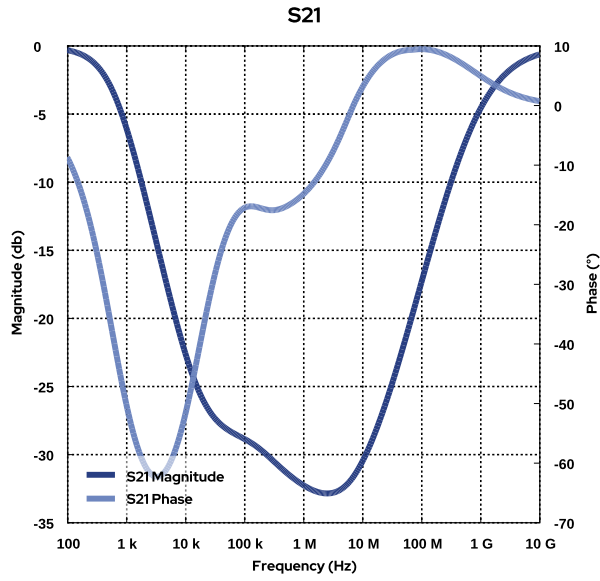


Current and Voltage



S11





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 (R_{th}) 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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If you have any questions please contact K-SIM.