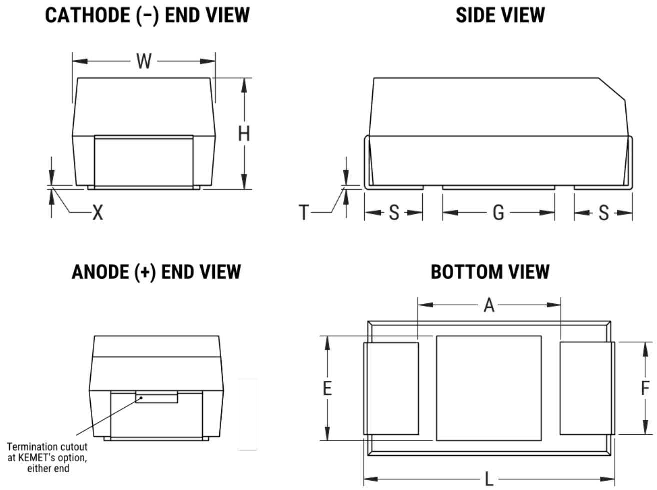
T494S475M010AH

T494, Tantalum, MnO2 Tantalum, 4.7 uF, 20%, 10 VDC, SMD, MnO2, Molded, Low Profile, Low ESR, 9 Ohms, 3216, Height Max = 1.2mm



Click here for the 3D model.

General Information

General Information	
Series	T494
Dielectric	MnO2 Tantalum
Style	SMD Chip
Description	SMD, MnO2, Molded, Low Profile, Low ESR
Features	Low ESR
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	41.42 mg
Shelf Life	156 Weeks
MSL	1

Dimensions

Dimensions	
Footprint	3216
L	3.2mm +/-0.2mm
W	1.6mm +/-0.2mm
H	1.1mm +/-0.1mm
T	0.13mm REF
S	0.8mm +0.2/-0.3mm
F	1.2mm +/-0.1mm
A	1.2mm MIN
E	1.3mm REF
G	1.1mm REF
X	0.1mm REF

Specifications

Specifications	
Capacitance	4.7 uF
Capacitance Tolerance	20%
Voltage DC	10 VDC (85C), 6.7 VDC (125C)
Temperature Range	-55/+125°C
Rated Temperature	85°C
Dissipation Factor	6% 120Hz 25C
Failure Rate	N/A
Resistance	9 Ohms (100kHz 25C)
Ripple Current	82 mA (rms, 100kHz 25C), 73.8 mA (rms, 85C), 32.8 mA (rms, 125C)
Leakage Current	0.5 uA (5min 25°C)

Packaging Specifications

Packaging Specifications	
Packaging	T&R, 178mm
Packaging Quantity	2500

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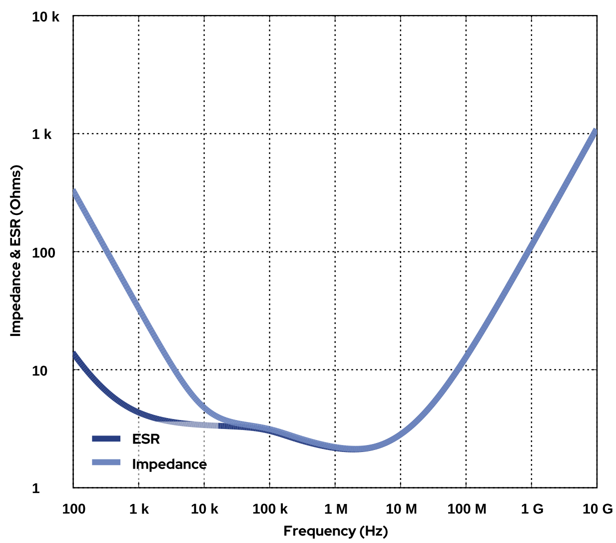
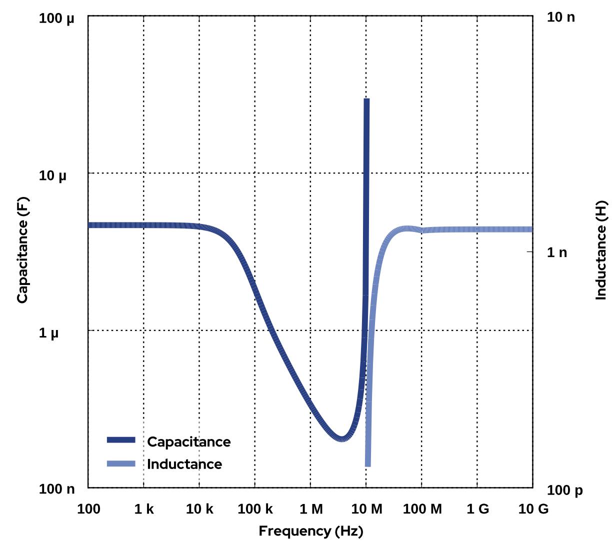
Simulations

For the complete simulation environment please visit K-SIM.

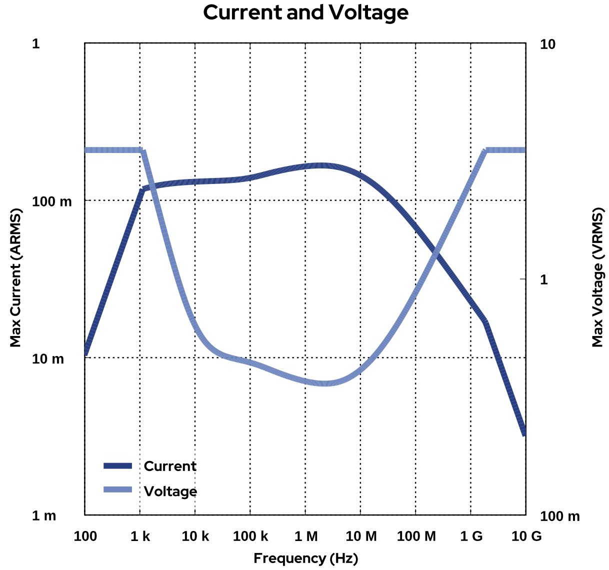
Impedance and ESR



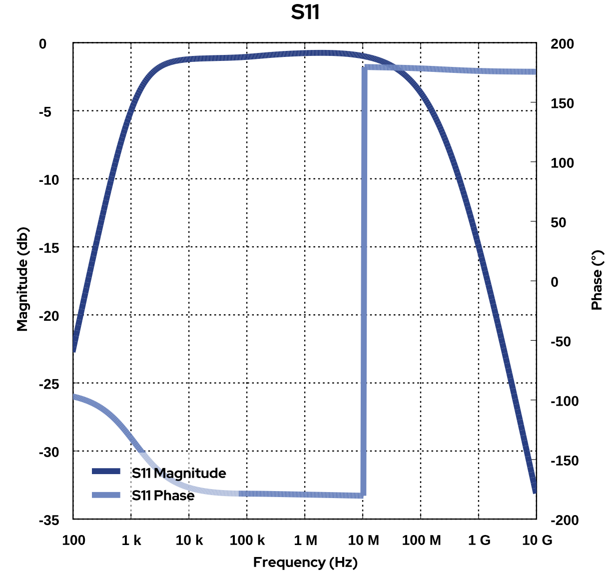
Capacitance and Inductance



Current and Voltage



S11



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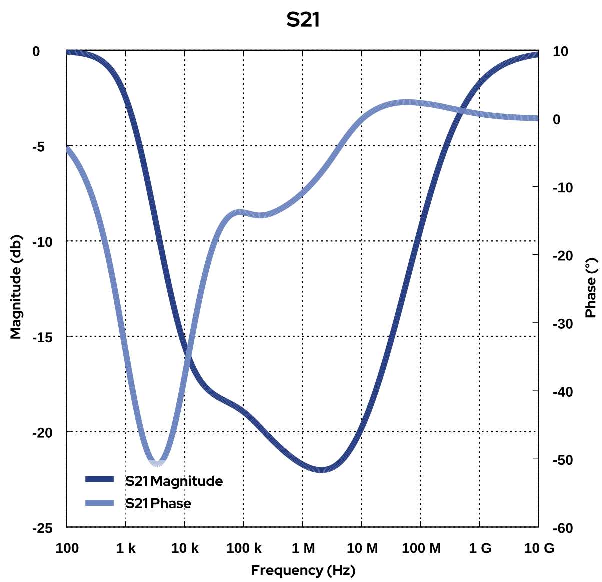

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These are simulations.

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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If you have any questions please contact K-SIM.