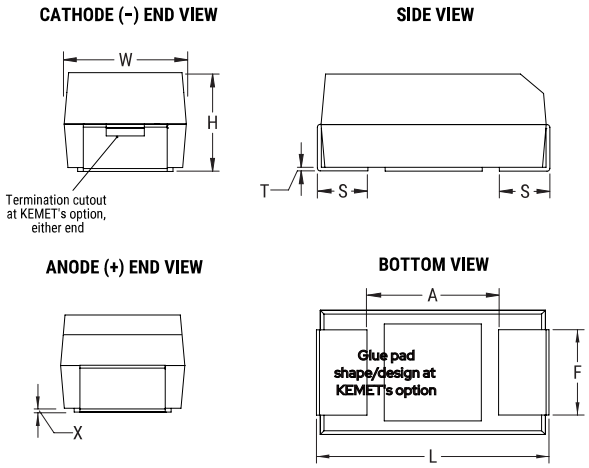
T591V107M010ATE025

T591, Tantalum, Polymer Tantalum, Commercial Grade, 100 uF, 20%, 10 VDC, SMD, Polymer, Molded, Low ESR, 25 mOhms, 7343, 2 mm, 1.3 mm



Click here for the 3D model.

General Information	
Series	T591
Dielectric	Polymer Tantalum
Style	SMD Chip
Description	SMD, Polymer, Molded, Low ESR
Features	Automotive
RoHS	Yes
Termination	Tin
Qualifications	AEC-Q200 (Limited 500 Hrs 85C/85% RH/Ur)
AEC-Q200	Subject to PPAP/PSW and change control
Typical Component Weight	274.3 mg
Shelf Life	52 Weeks
MSL	3

Dimensions	
L	7.3mm +/-0.3mm
W	4.3mm +/-0.3mm
H	1.9mm +/-0.1mm
T	0.13mm REF
S	1.3mm +/-0.3mm
F	2.4mm +/-0.1mm
A	3.8mm MIN
X	0.05mm REF

Packaging Specifications	
Packaging	T&R, 178mm
Packaging Quantity	1000

Specifications	
Capacitance	100 uF
Tolerance	20%
Voltage DC	10 VDC (105C), 6.7 VDC (125C)
Temperature Range	-55/+125°C
Rated Temperature	105°C
Humidity	85C, 85% RH, load, 500 Hours
Dissipation Factor	10% 120Hz 25C
Failure Rate	N/A
ESR	25 mOhms (100kHz 25C)
Ripple Current	4000 mA (rms, 100kHz 45C), 2800 mA (rms, 105C), 1000 mA (rms, 125C)
Leakage Current	100 uA (5min 25°C)

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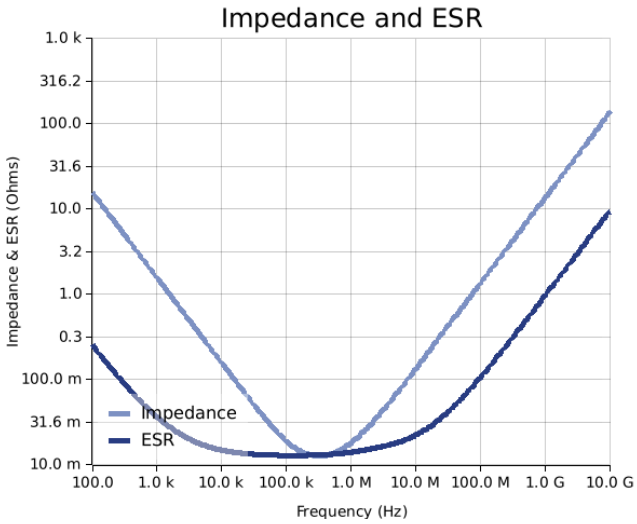
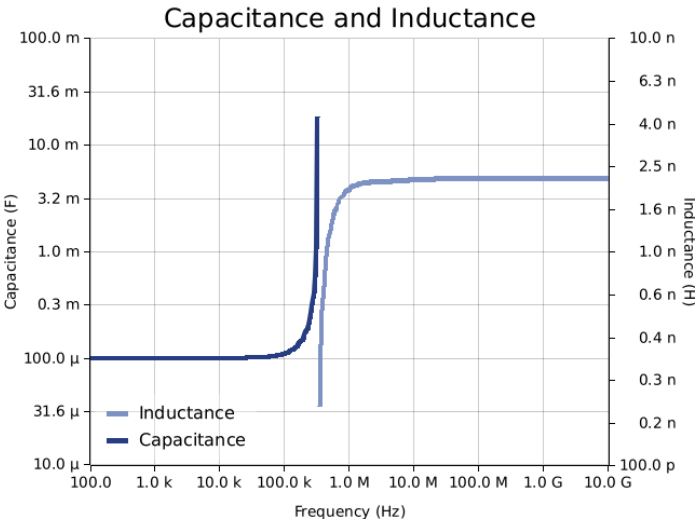
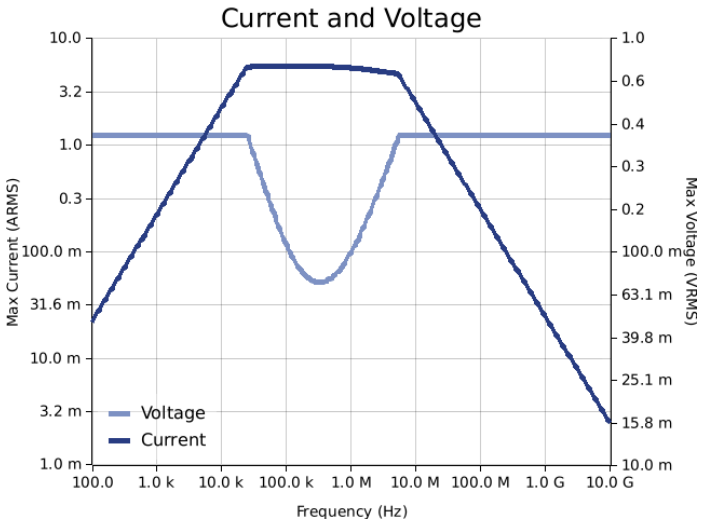
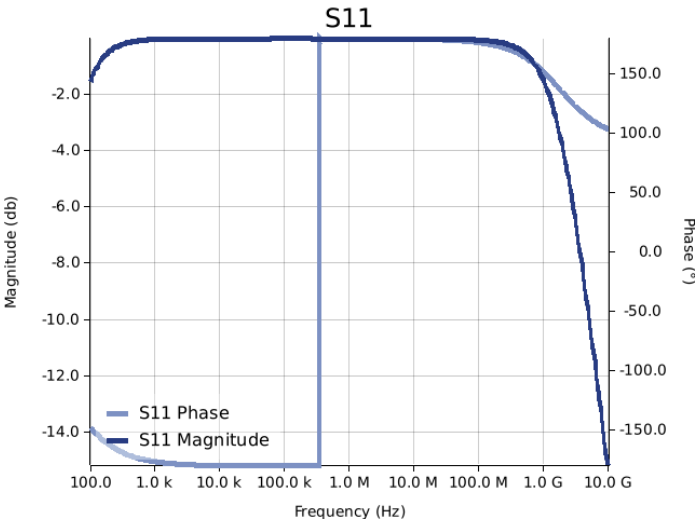
Simulations

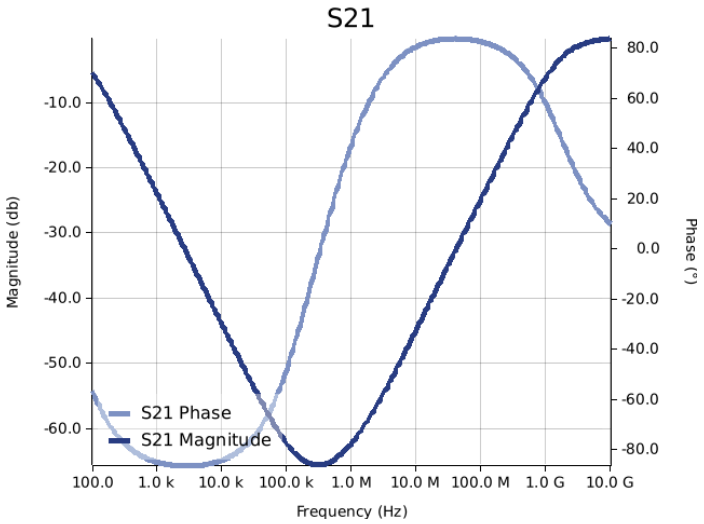
For the complete simulation environment please visit K-SIM.











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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.