

# T521T106M035APE100

T521, Tantalum, Polymer Tantalum, Commercial Grade, 10 uF, 20%, 35 VDC, SMD, Polymer, Molded, Low ESR, Non-Combustible, 100 mOhms, 3528, 1.2 mm, 0.8 mm

CATHODE (-) END VIEW SIDE VIEW Termination cutout at KEMET's option, either end ANODE (+) END VIEW BOTTOM VIEW Give pad shape/design at KEMET's option

General Information	
Series	T521
Dielectric	Polymer Tantalum
Style	SMD Chip
Description	SMD, Polymer, Molded, Low ESR, Non-Combustible
Features	Low ESR, High Voltage
RoHS	Yes
Termination	Nickel Palladium Gold
AEC-Q200	No
Typical Component Weight	54.84 mg
Shelf Life	52 Weeks
MSL	4

Capacitance10 uFTolerance20%Voltage DC35 VDC (105C)Temperature Range-55/+105°CRated Temperature105°CLife2000 Hrs (105C)Humidity60C, 90% RH, 500 Hours, No LoadDissipation Factor8% 120Hz 25CFailure RateN/AESR100 mOhms (100kHz 45C), 889 mA (rms, 100kHz 45C), 889	Specifications	
Voltage DC35 VDC (105C)Temperature Range-55/+105°CRated Temperature105°CLife2000 Hrs (105C)Humidity60C, 90% RH, 500 Hours, No LoadDissipation Factor8% 120Hz 25CFailure RateN/AESR100 mOhms (100kHz 25C)Ripple Current1270 mA (rms, 100kHz 45C), 889	Capacitance	10 uF
Temperature Range-55/+105°CRated Temperature105°CLife2000 Hrs (105C)Humidity60C, 90% RH, 500 Hours, No LoadDissipation Factor8% 120Hz 25CFailure RateN/AESR100 mOhms (100kHz 25C)Ripple Current1270 mA (rms, 100kHz 45C), 889	Tolerance	20%
Rated Temperature105°CLife2000 Hrs (105C)Humidity60C, 90% RH, 500 Hours, No LoadDissipation Factor8% 120Hz 25CFailure RateN/AESR100 mOhms (100kHz 25C)Ripple Current1270 mA (rms, 100kHz 45C), 889	Voltage DC	35 VDC (105C)
Life2000 Hrs (105C)Humidity60C, 90% RH, 500 Hours, No LoadDissipation Factor8% 120Hz 25CFailure RateN/AESR100 mOhms (100kHz 25C)Ripple Current1270 mA (rms, 100kHz 45C), 889	Temperature Range	-55/+105°C
Humidity60C, 90% RH, 500 Hours, No LoadDissipation Factor8% 120Hz 25CFailure RateN/AESR100 mOhms (100kHz 25C)Ripple Current1270 mA (rms, 100kHz 45C), 889	Rated Temperature	105°C
LoadDissipation Factor8% 120Hz 25CFailure RateN/AESR100 mOhms (100kHz 25C)Ripple Current1270 mA (rms, 100kHz 45C), 889	Life	2000 Hrs (105C)
Failure RateN/AESR100 mOhms (100kHz 25C)Ripple Current1270 mA (rms, 100kHz 45C), 889	Humidity	
ESR         100 mOhms (100kHz 25C)           Ripple Current         1270 mA (rms, 100kHz 45C), 889	Dissipation Factor	8% 120Hz 25C
Ripple Current 1270 mA (rms, 100kHz 45C), 889	Failure Rate	N/A
	ESR	100 mOhms (100kHz 25C)
105C)	Ripple Current	mA (rms, 85C), 317.5 mA (rms,
Leakage Current 35 uA (5min 25°C)	Leakage Current	35 uA (5min 25°C)

Click here for the 3D model.

Dimensions	
L	3.5mm +/-0.2mm
W	2.8mm +/-0.2mm
Н	1.1mm +/-0.1mm
т	0.13mm REF
S	0.8mm +/-0.3mm
F	2.2mm +/-0.1mm
A	1.9mm MIN
Х	0.05mm REF

### Packaging Specifications

Packaging	T&R, 178mm
Packaging Quantity	3000

Statements of suitability for certain applications are based on our knowledge of typical operating conditions for such applications, but are not intended to constitute - and we specifically disclaim - any warranty concerning suitability for a specific customer application or use. This Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by us with reference to the use of our products is given gratis, and we assume no obligation or liability for the advice given or results obtained.



## T521T106M035APE100

S11 Phase

1.0 k

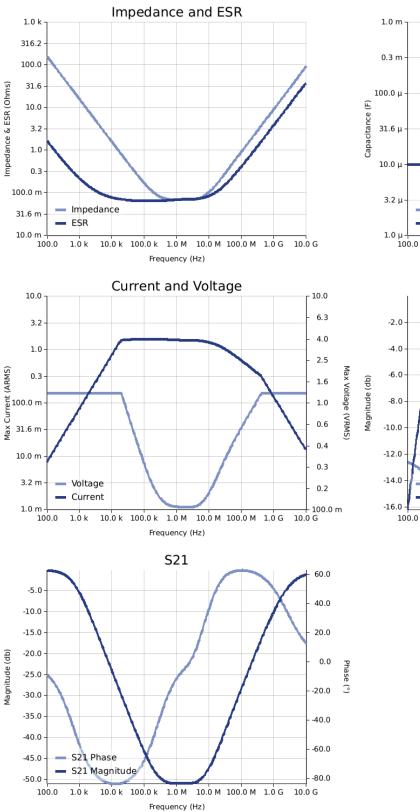
S11 Magnitude

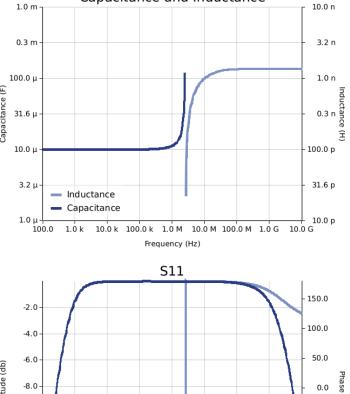
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Capacitance and Inductance

### Simulations

For the complete simulation environment please visit K-SIM.





10.0 k 100.0 k 1.0 M 10.0 M 100.0 M 1.0 G 10.0 G

Frequency (Hz)

°

-50.0

-100.0

-150.0



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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 used for https:// temperature Rise vs. 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.

All Information given herein is believed to be accurate and reliable, but is presented without guarantee, warranty, or responsibility of any kind, expressed or implied. Statements of suitability for certain applications are based on our knowledge of typical operating conditions for such applications, but are not intended to constitute – and we specifically disclaim – any warranty concerning suitability for a specific customer application or use. This Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by us with reference to the use of our products is given gratis, and we assume no obligation or liability for the advice given or results obtained.

If you have any questions please contact K-SIM.