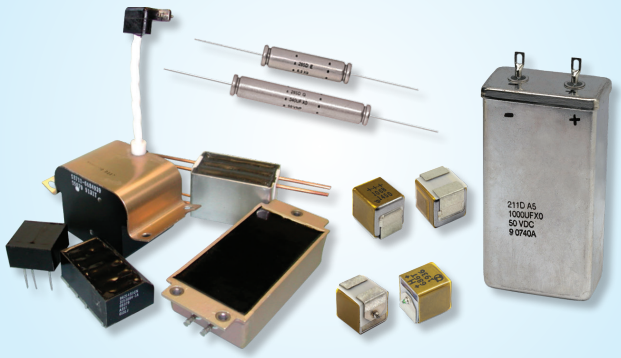
WET TANTALUM ARRAYS AND ASSEMBLIES
Selector Guide

FEATURED PRODUCTS

- Wet Surface-Mount Capacitors
- Standard Arrays and Assemblies
- Custom-Designed Assemblies
- Custom Case and Termination Options
- High Capacitance and / or High Voltage Options
- Single or Dual Ratings
- Dielectric Options: Aluminum, Ceramic, Tantalum
- Series and Parallel Capacitor Circuit Design Options



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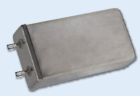
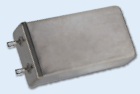
Series	Capacitance Range	Voltage Range	Case Size	Features
Arrays and Assemblies				
285D 	1.0 µF to 410 µF	6 V to 300 V	A, B, C, D, E, F, G, H	Tantalex®, Tantalum Case, Replacement for Tantalum Foil M39006/01, /02, /03, /04, /16, /17 Series, Polar and Non-Polar Configurations
200D, 202D 	70 µF to 15 000 µF	6 V to 150 V	A1 - A5, B1 - B7	Tantalex, Tantalum Case, Hermetic Seal, TANTAPAK Capacitor Assemblies
DLA 04021 	70 µF to 2400 µF	15 V to 150 V	A1, A2, A3, A4, A5	Tantalum Case, Hermetic Seal, Capacitor Assemblies, Replacement for MIL-DTL-3965/21 (CL55)
211D 	70 µF to 14 000 µF	10 V to 150 V	A1 - A5, B1 - B7	Tantalex, Tantalum Case, Hermetic Seal, TANTAPAK Capacitor Assemblies
MT2 	27 µF to 6000 µF	6 V to 375 V	B	Epoxy Resin Modules, Internal Axial Lead, Tantalum Case, Hermetic Seal Elements
T22 	10 µF to 110 µF	50 V to 125 V	C	Wet Surface-Mount, Tantalum Case
T24 	10 µF to 33 µF	75 V to 125 V	C	Wet Surface-Mount, Tantalum Case, for +200 °C Operation
DLA 19001 	10 µF to 68 µF	50 V to 125 V	C	Wet Surface-Mount, Tantalum Case

Custom Designs

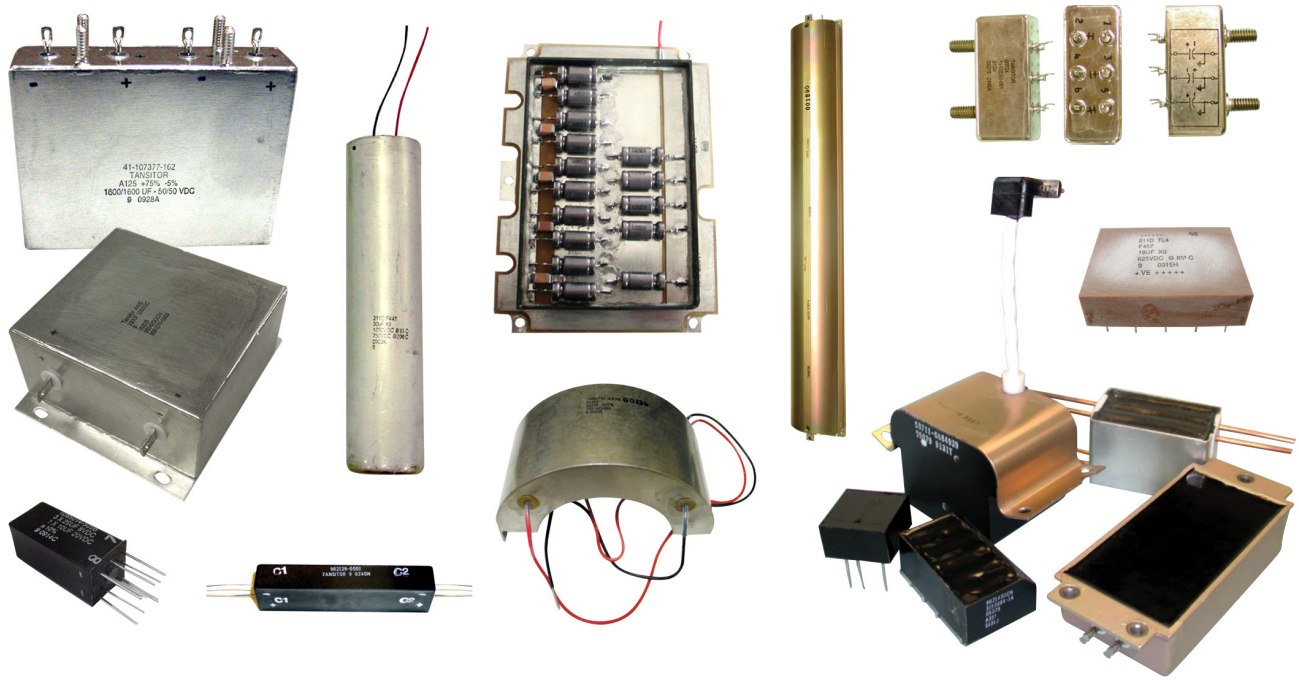
Custom-designed capacitor assemblies are an important tool for circuit designers faced with extra high capacitance and / or voltage requirements not met by standard units. In most cases, Vishay capacitor assemblies employ internal sections of wet tantalum capacitors. However, an assembly may utilize solid tantalum, ceramics, and even aluminum internal sections, along with resistors and other components as needed, to meet the electrical parameters and performance required. Dual or plural ratings are also available in a single assembly.

Vishay capacitor assemblies have been used in aerospace and defense applications for many years. They are also an important component for oil exploration equipment and other industrial applications.

The capacitor assembly may prove valuable in any application where there are high capacitance / voltage needs and critical space limitations exist, or multiple functions are required in one package.

Because tantalum capacitors can be designed to provide a wide range of parameters, they allow simplified circuit design and a lower cost solution. Reliability depends on the capacitor elements used, while cost reflects both capacitor type picked and quantity required.

Custom Arrays



Capacitor Assembly

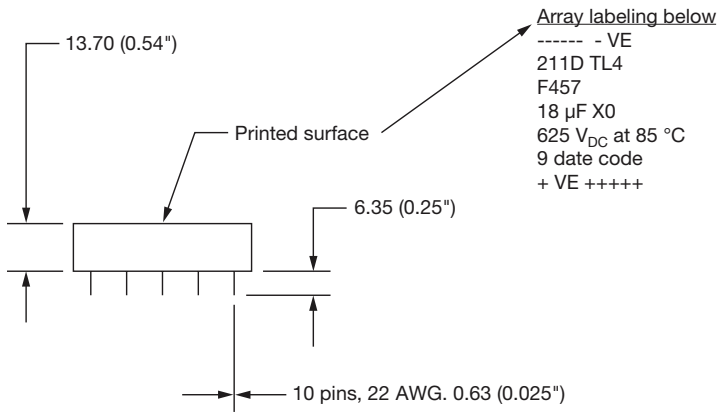
Each Vishay custom capacitor assembly will be documented with a Vishay drawing, and assigned a unique part number. If there is a customer drawing, it will be noted here and all revisions will be fully documented. For customized array request please refer to [“Capacitor Array Design Guide” https://www.vishay.com/doc?40213](https://www.vishay.com/doc?40213).

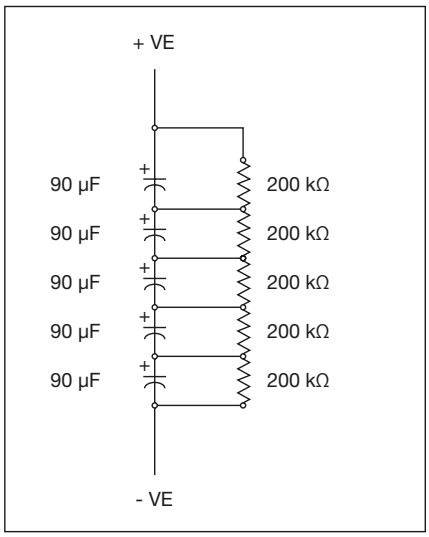
Dimensions shown are metric, values in parenthesis indicate inch equivalent.

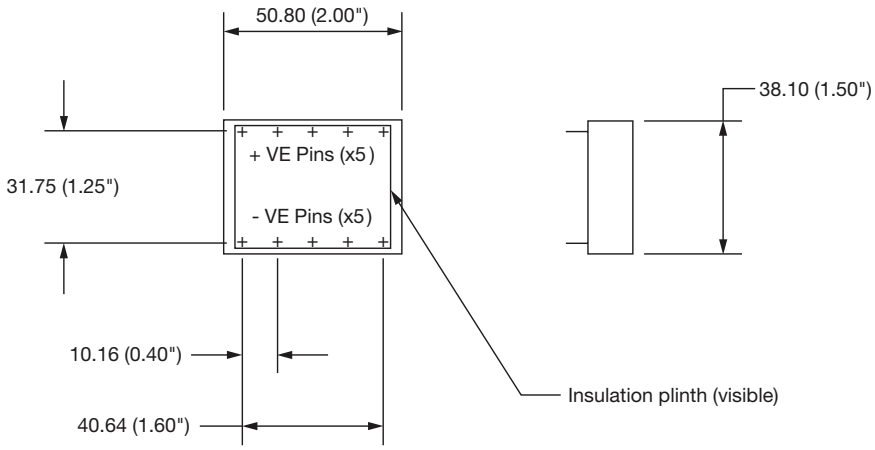
Electrical parameters:

a) Temperature range: -55 °C to 200 °C
b) Capacitance at 120 Hz, 25 °C: 18 µF ± 20 %
c) Voltage at 85 °C = 625 VDC
d) Voltage at 200 °C = 300 VDC
e) % dissipation factor at 120 Hz and 25 °C = 50 % max.
f) Decay time (from 625 V to 3.5 V): < 2 min
g) Reverse voltage capability: none
h) Surge voltage capability: 1.15 times rated voltage at relevant temp.
i) Max. RMS ripple at 40 kHz and 85 °C = 1.5 A
j) Max. weight = TBD (should be less than 100 g)
k) Resistors: RN55D2003F
l) Capacitor sections: five pieces 134D (HT90-125L2I)
m) Vishay SAP part number: 211D186X0625XTL4
n) Vishay non-standard number: 211DTL4

REV.	DATE	REVISION	APPROVALS	DWN BY
A	1/09	Change ripple from 2.0 A to 1.5 A		R. P.
B	3/09	Remove preliminary, add marking, add Vishay SAP part number		R. P.







Note
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DATE:	11-26-08
DRAWN BY:	R. P.
APPROVALS:	
Standard tolerances	..XX ± 0.010 Fractions ± 1/64 ..XXX ± 0.005 Angular ± 0°30' ..XXXX ± 0.0005 Finish 125√

VISHAY
TANSITOR ELECTRONICS, INC.
PO BOX 230 WEST ROAD
BENNINGTON, VT. 05201

TITLE: Cap. Module, 18 µF at 300 V_{DC} at 200 °C

SCALE: None

DWG. NO.: 211D186X0625XTL 4

Capacitor Array Design Guide

Inquiry date: _____

Name: _____ Title: _____

Company: _____ Phone: _____

Address: _____ Fax: _____

_____ Email: _____

_____ _____

Application Data:

Actual component use: _____

_____

Physical environment: _____

_____

Shock level: _____ Vibration level: _____

Assembly hermeticity requirements: _____

Case material: _____

Termination type: _____

Physical dimensions: Length: _____ Width: _____ Height: _____

Physical, form factor, and mounting means: _____

_____

Capacitance: _____ µF _____ tolerance (%)

Working voltage: 85 °C _____ , 125 °C _____ , other temperature _____ °C

Equivalent series resistance: (ESR) _____ Ω, frequency _____ (Hz), _____ °C

Ripple current-magnitude: _____ A, frequency _____ (Hz)

Impedance limit: _____ Ω, frequency _____ (Hz)

DC leakage: _____ µA

Application temperature: _____ °C Maximum temperature: _____ °C