PRODUCTS

Tantalum Polymer Through-Hole Capacitors

T550 Axial Polymer Hermetic Seal (PHS) and DLA Series

Electronic Components
KEMET
CHARGED.

Why Choose KEMET

KEMET Corporation is a leading global supplier of electronic components. We offer our customers the broadest selection of capacitor technologies in the industry, along with an expanding range of electromechanical devices, electromagnetic compatibility solutions and supercapacitors. Our vision is to be the preferred supplier of electronic component solutions for customers demanding the highest standards of quality, delivery and service.

Features & Benefits

- Includes F-Tech anode which eliminates hidden defects in the dielectric
- 100% Simulated Breakdown Screening
- Voltage rating: 6 to 75 VDC
- Polymer cathode technology
- ≤ 0.0075 CV (μA) at rated voltage after 5 minutes
- Extremely low ESR
- High frequency capacitance retention
- Low temperature capacitance retention
- 100% accelerated steady state aging
- 100% surge current tested
- Volumetrically efficient
- Use of up to 80% of rated voltage
- Non-ignition failure mode
- Approximately 25% lighter than equivalent wet tantalum
- Case dimensions equivalent to MIL-PRF-39006/25
- Capacitance: 20 to 820 μF
- Meets all requirements of DLA Drawing 13030

Product Checklist

- What is the actual required capacitance?
- What is the operating temperature and frequency?
- What is the actual operating voltage?
- Are there any voltage spikes or reverse voltage expected?
- Are there any mechanical robustness concerns, such as vibration or shock?
- What are the ESR requirements?

For more information, samples and engineering kits, please visit us at www.kemet.com or call 1.877.myKEMET.

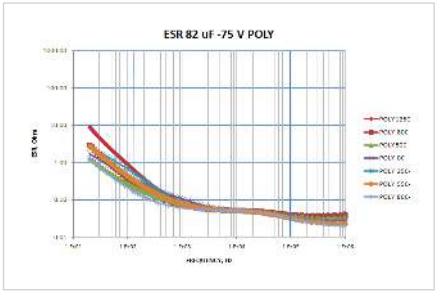
Programs Supported

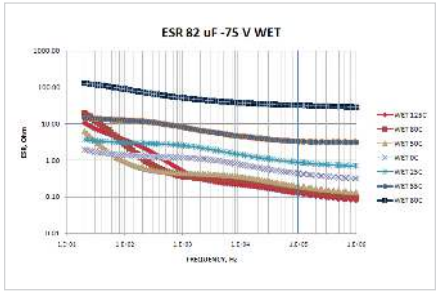
High voltage power management applications such as:

- Buck boost converters
- Filtering
- Hold-up capacitors
- Other high ripple current applications

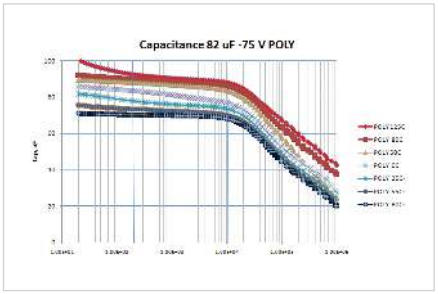
Advantages Over Wet Tantalum

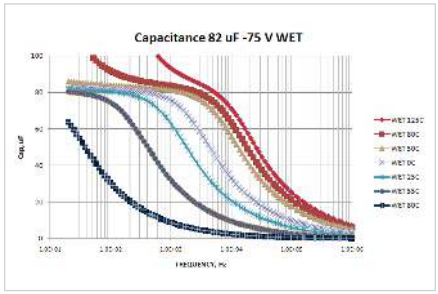
- Up to 90% lower ESR
- Approximately 40% increased ripple current capabilities
- Approximately 25% lighter package
- Improved capacitance retention at high frequency and low temperature
- Improved shock and vibration handling



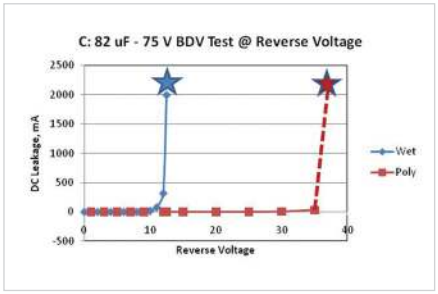


Comparison of ESR in Polymer Hermetic Seal and Wet Tantalum capacitors





Comparison of capacitance in Polymer Hermetic Seal and Wet Tantalum capacitors



Comparison of reverse voltage in Polymer Hermetic Seal and Wet Tantalum capacitors

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Ratings & Part Number Reference

Rated Voltage (V)	Rated Capacitance (µF)	Case Sizes	KEMET Part Number	DC Leakage µA @ 25°C max/5 mins	DF% @ 25°C 120 Hz Max	Maximum ESR mΩ @25°C 100 kHz	Ripple Current mArms @ 85°C/40 kHz 1/	DLA (DSCC) Drawing Number
6	140	B	T550B147(1)006A(3)	6.3	5.0	120	1,510	N/A
6	820	B	T550B827(1)006A(3)	36.9	5.0	90	1,750	N/A
8	220	B	T550B227(1)008A(3)	13.2	5.0	120	1,510	N/A
8	680	B	T550B687(1)008A(3)	40.8	5.0	90	1,750	N/A
10	100	B	T550B107(1)010A(3)	7.5	5.0	140	1,400	N/A
10	180	B	T550B187(1)010A(3)	13.5	5.0	110	1,580	N/A
10	560	B	T550B567(1)010A(3)	42.0	5.0	90	1,750	N/A
15	70	B	T550B706(1)015A(3)	7.9	5.0	140	1,400	N/A
15	120	B	T550B127(1)015A(3)	13.5	5.0	110	1,580	N/A
15	390	B	T550B397(1)015A(3)	43.9	5.0	90	1,750	N/A
25	50	B	T550B506(1)025A(3)	9.4	5.0	170	1,275	N/A
25	100	B	T550B107(1)025(2)(3)	18.8	5.0	190	1,200	13030-01(1)A(4)(5)(6)
30	40	B	T550B406(1)030A(3)	9.0	5.0	170	1,275	N/A
30	68	B	T550B686(1)030A(3)	15.3	5.0	140	1,400	N/A
40	100	B	T550B107(1)040(2)(3)	30.0	5.0	150	1,350	13030-02(1)A(4)(5)(6)
40	120	B	T550B127(1)040(2)(3)	36.0	5.0	120	1,510	13030-03(1)A(4)(5)(6)
50	25	B	T550B256(1)050A(3)	9.4	5.0	170	1,275	N/A
50	47	B	T550B476(1)050A(3)	17.6	5.0	150	1,350	N/A
50	100	B	T550B107(1)050(2)(3)	37.5	5.0	130	1,450	13030-04(1)A(4)(5)(6)
50	120	B	T550B127(1)050(2)(3)	45.0	5.0	90	1,750	13030-05(1)A(4)(5)(6)
60	20	B	T550B206(1)060A(3)	9.0	5.0	200	1,175	N/A
60	39	B	T550B396(1)060A(3)	17.6	5.0	160	1,310	N/A
60	100	B	T550B107(1)060A(3)	45.0	5.0	100	1,660	N/A
75	75	B	T550B756(1)075A(3)	42.2	5.0	110	1,580	N/A

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.
(2) To complete KEMET part number, insert A = N/A, B= standard reliability, or T = high reliability.
(3) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.
(4) To complete the DLA PIN number , insert the insulation option. S= Sleeved, U= Unsleeved.
(5)To complete the DLA PIN number, insert the lead length option. L=1.50 in
(6)To complete the DLA PIN number, insert the product level option. B = standard reliability or T= high reliability.

T	550	B	107	M	025	A	T	4251
Capacitor Class	Series	Case Size	Capacitance Code (pF)	Capacitance Tolerance	Voltage	Failure Rate/ Design	Lead Material	Surge Option
T = Tantalum	550 = Polymer Hermetic Seal	B	First two digits represent significant figures. Third digit specifies number of zeros.	K = ±10% M = ±20%	006 = 6.3 V 008 = 8 V 015 = 15 V 025 = 25 V 040 = 40 V 050 = 50 V 060 = 60 V 075 = 75 V	A = N/A B = Standard reliability* T = High reliability*	T = 100% tin (Sn) plated H = Tin/lead (SnPb) solder coated (5% Pb minimum)	4250 = Surge current, 10 cycles +25°C 4251 = Surge current, 10 cycles, -55°C and +85°C

* Failure rate applies only to DLA part numbers

13030	-01	K	A	S	L	B
Drawing Number	Dash Number	Capacitance Tolerance	Surge Current Testing	Insulation	Lead Length	Level
	See Part Numbers list	K = ±10% M = ±20%	A = +25°C ± 5°C, 10 cycles, after constant voltage conditioning	S = Sleeved U = Unsleeved	L = 1.50 inches (standard) T = 2.25 inches (optional)	B = Standard reliability T = High reliability