



# Tantalum Polymer Through-Hole Capacitors

T551 Axial Polymer Hermetic Seal (PHS) 125°C Series



## 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 across all dielectrics, 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
- Maximum operating temperature of +125°C
- Capacitance of 20  $\mu\text{F}$  to 820  $\mu\text{F}$
- Polymer cathode technology
- $\leq 0.0075 \text{ CV } (\mu\text{A})$  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
- Non-ignition failure mode
- Approximately 25% lighter than equivalent wet tantalum
- Case dimensions equivalent to MIL-PRF-39006/22/25/30/31

## Product Checklist

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

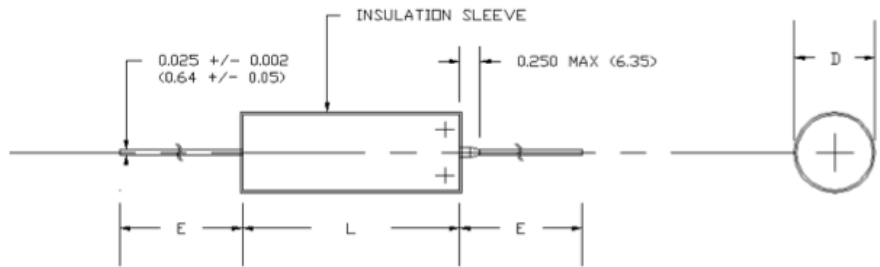
For more information, samples and engineering kits, please visit us at [www.kemet.com](http://www.kemet.com) or call 1.877.myKEMET.

## Programs Supported

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



## Dimensions



Case Code	Case Size	Uninsulated Case Inches (mm)		Insulated Case Inches (mm)	
		L +0.031 (0.79) -0.016 (0.41)	D $\pm 0.016$ (0.41)	D Max.	E $\pm 0.25$ (6.35)
B	T2	0.641 (16.28)	0.281 (7.14)	0.312 (7.92)	*1.50 (38.10)

\* Lead length of 2.25" available upon request.

## Ordering Information

T	551	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	551 = Polymer Hermetic Seal	B	First two digits represent significant figures. Third digit specifies number of zeros.	K = $\pm 10\%$ M = $\pm 20\%$	006 = 6.3 V 008 = 8 V 015 = 15 V 025 = 25 V 040 = 40 V 050 = 50 V 060 = 60 V	A = N/A	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



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## Ratings & Part Number Reference

Rated Voltage	Rated Capacitance	Case Sizes	KEMET Part Number	DC Leakage	DF	Maximum ESR	Ripple Current
(V)	( $\mu$ F)			$\mu$ A @ 25°C Max/5 Mins	% @ 25°C 120 Hz Max	m $\Omega$ @ 25°C 100 kHz	mArms @ 85°C/40 kHz
6	140	B	T551B147(1)006A(2)	6.3	5.0	120	1510
6	820	B	T551B827(1)006A(2)	36.9	5.0	90	1750
8	220	B	T551B227(1)008A(2)	13.2	5.0	120	1510
8	680	B	T551B687(1)008A(2)	40.8	5.0	90	1750
10	100	B	T551B107(1)010A(2)	7.5	5.0	140	1400
10	180	B	T551B187(1)010A(2)	13.5	5.0	110	1580
10	560	B	T551B567(1)010A(2)	42.0	5.0	90	1750
15	70	B	T551B706(1)015A(2)	7.9	5.0	140	1400
15	120	B	T551B127(1)015A(2)	13.5	5.0	110	1580
15	390	B	T551B397(1)015A(2)	43.9	5.0	90	1750
25	50	B	T551B506(1)025A(2)	9.4	5.0	170	1275
25	100	B	T551B107(1)025A(2)	18.8	5.0	190	1200
30	40	B	T551B406(1)030A(2)	9.0	5.0	170	1275
30	68	B	T551B686(1)030A(2)	15.3	5.0	140	1400
40	100	B	T551B107(1)040A(2)	30.0	5.0	150	1350
40	120	B	T551B127(1)040A(2)	36.0	5.0	120	1510
50	25	B	T551B256(1)050A(2)	9.4	5.0	170	1275
50	47	B	T551B476(1)050A(2)	17.6	5.0	150	1350
50	100	B	T551B107(1)050A(2)	37.5	5.0	130	1450
50	120	B	T551B127(1)050A(2)	45.0	5.0	90	1750
60	20	B	T551B206(1)060A(2)	9.0	5.0	200	1175
60	39	B	T551B396(1)060A(2)	17.6	5.0	160	1310
60	100	B	T551B107(1)060A(2)	45.0	5.0	100	1660

(1) To complete KEMET part number, insert M for  $\pm$ 20% or K for  $\pm$ 10% for capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% matte tin (Sn) plated or H = standard solder coated (SnPb 5% Pb minimum) for termination finish.

Please refer to Ordering Information for additional detail.