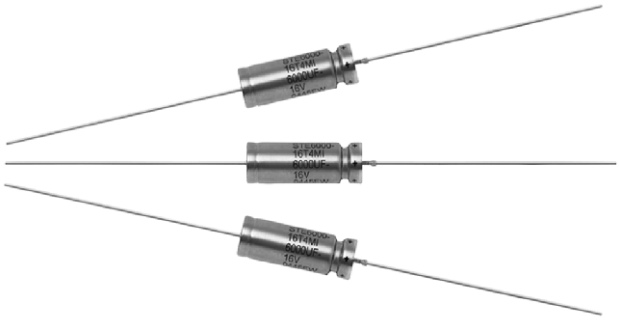
SuperTan® Extended (STE) Capacitors
Wet Tantalum with Hermetic Seal



FEATURES

Vishay SuperTan® Extended (STE) represents a major breakthrough in wet tantalum capacitor technology. Its unique cathode system, also used in the ST, provides the highest capacitance per unit volume available. The STE combines the inherent reliability of wet tantalum with the capacitance stability of solid tantalum, and there are no circuit impedance restrictions. The range is exceptionally well suited for low voltage filtering and energy storage applications. Ideal for designs targeting the military and aerospace industry.

The SuperTan® Extended (STE) is housed in an all tantalum, hermetically sealed case and is manufactured to withstand high stress and hazardous environments.

PERFORMANCE CHARACTERISTICS

Operating Temperature: - 55 °C to + 85 °C (to + 125 °C with voltage derating)

Capacitance Tolerance: At 120 Hz, + 25 °C. ± 20 % standard. ± 10 % available as special.

DC Leakage Current (DCL Max.): At + 25 °C and above: Leakage current shall not exceed the values listed in the Standard Ratings Tables.

Life Test: Capacitors are capable of withstanding a 2000 h life test at a temperature of + 85 °C at the applicable rated DC working voltage.

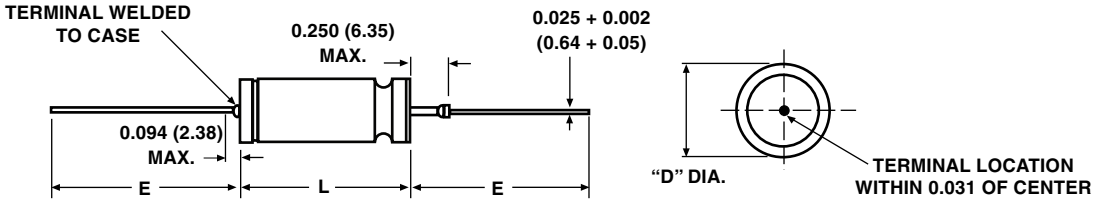
ORDERING INFORMATION

STE	6000	16	T4	M	I
TYPE	CAPACITANCE µF	DC VOLTAGE RATING AT + 85 °C	CASE SIZE	CAPACITANCE TOLERANCE	INSULATING SLEEVE
				M = ± 20 % K = ± 10 %	I = Insulated X = Uninsulated

Note

Packaging: The use of formed plastic trays for packaging this type of axial lead component is standard. Tape and reel is not recommended due to the unit weight.

DIMENSIONS in inches [millimeters]



CASE CODE	D MAX. INSULATED	D ± 0.016 (0.41)	L + 0.031 (0.79) UNINSULATED	E ± 0.250 (6.35) MAX.
T1	0.219 (5.56)	0.188 (4.78)	0.453 (11.51)	1.500 (38.10)
T2	0.312 (7.92)	0.281 (7.14)	0.641 (16.28)	2.250 (57.15)
T3	0.406 (10.31)	0.375 (9.52)	0.766 (19.46)	2.250 (57.15)
T4	0.406 (10.31)	0.375 (9.52)	1.062 (26.97)	2.250 (57.15)

Notes
1. Material at egress is tantalum
2. Insulation sleeving will lap over the ends of the capacitor case
3. Tinned nickel leads, solderable and weldable

Approx. Weight
T1: 2.3 g, T2: 5.7 g
T3: 9.4 g, T4: 14.8 g

STANDARD RATINGS

CAP. (µF)	VOLTAGE	CASE CODE	PART NUMBER	MAX. ESR at + 25 °C 120 Hz (Ω)	TYP. ESR at + 25 °C 1 kHz (Ω)	MAX. DCL at + 25 °C (µA)	MAX. DCL at + 85 °C/ + 125 °C (µA)	MAX. CAPACITANCE CHANGE at - 55 °C, (%)	MAX. CAPACITANCE CHANGE at + 85 °C (%)	MAX. CAPACITANCE CHANGE at + 125 °C (%)	MAX. IMP. at - 55 °C 125 kHz (Ω)	AC RIPPLE 85 °C 40 kHz mA rms
10 WVDC at + 85 °C. . .												
4700	10	T3	STE4700-10T3MI	0.35	0.20	16	100	- 80 %	+ 10 %	+ 20 %	3.5	4000
10 000	10	T4	STE10000-10T4MI	0.25	0.100	25	150	- 85 %	+ 20 %	+ 35 %	3.0	5000
16 WVDC at + 85 °C. . . 11 WVDC at + 125 °C												
3300	16	T3	STE3300-16T3MI	0.35	0.20	16	100	- 80 %	+ 10 %	+ 15 %	3.5	4000
6000	16	T4	STE6000-16T4MI	0.3	0.15	25	150	- 80 %	+ 15 %	+ 20 %	3.0	4500
25 WVDC at + 85 °C… 15 WVDC at + 125 °C…												
4000	***25***	***T4***	***Preliminary value, contact marketing***									
30 WVDC at + 85 °C… 20 WVDC at + 125 °C…												
3300	***30***	***T4***	***Preliminary value, contact marketing***									
35 WVDC at + 85 °C… 22 WVDC at + 125 °C…												
2500	***35***	***T4***	***Preliminary value, contact marketing***									
50 WVDC at + 85 °C… 30 WVDC at + 125 °C…												
1500	50	T4	STE1500-50T4MI	0.45	0.23	15	110	- 70 %	+ 20 %	+ 20 %	6.0	3500
60 WVDC at + 85 °C. . . 40 WVDC at + 125 °C												
1000	60	T4	STE1000-60T4MI	0.5	0.30	20	120	- 40 %	+ 10 %	+ 15 %	5.5	3500
75 WVDC at + 85 °C… 50 WVDC at + 125 °C…												
180	75	T2	STE180-75T2MI	1.50	0.50	5	25	- 35 %	15 %	+ 20 %	30	2000
470	75	T3	STE470-75T3MI	0.6	0.33	25	100	- 45 %	+ 10 %	+ 25 %	10	3000
750	75	T4	STE750-75T4MI	0.5	0.40	20	120	- 35 %	+ 10 %	+ 15 %	6.5	3500
100 WVDC at + 85 °C. . . 65 WVDC at + 125 °C												
400	100	T4	STE400-100T4MI	0.70	0.40	10	120	- 40 %	+ 6 %	+ 12 %	15	3000
125 WVDC at + 85 °C… 85 WVDC at + 125 °C…												
270	***125***	***T4***	***Preliminary value, contact marketing***									

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