

SuperTan® Extended Capacitors, Wet Tantalum with Hermetic Seal



KEY BENEFITS

- Temperature range of - 55 °C to + 85 °C, to + 125 °C with voltage derating
- Maximum ESR from 0.25 Ω to 1.5 Ω at 120 Hz
- 180 μ F to 10 000 μ F capacitance range
- Capacitance tolerances of \pm 20 % standard at 120 Hz and + 25 °C
 - Tolerances of \pm 10 % available

APPLICATIONS

- Low-voltage filtering and energy storage applications
- High-stress military and aerospace systems including:
 - Weapon systems
 - Radars
 - Transponders
 - Power supplies

RESOURCES

- Datasheets
 - STE - <http://www.vishay.com/doc?43009>
 - DSCC 10004 - <http://www.vishay.com/doc?40137>
- Wet tantalum product portfolio: <http://www.vishay.com/capacitors/tantalum/tantalum-wet/>
- Technical questions: wettants@vishay.com
- Sales contact: <http://www.vishay.com/doc?99914>



SuperTan® Extended Capacitors, Wet Tantalum with Hermetic Seal



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.

FEATURES

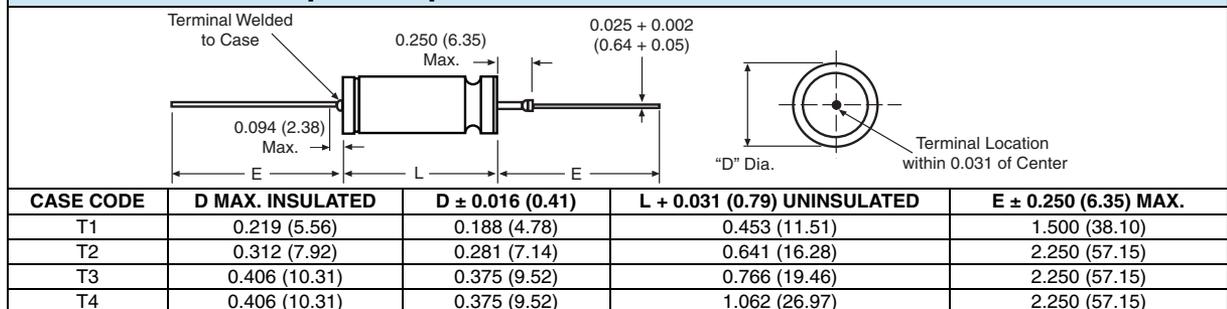
Vishay SuperTan® Extended (STE/DSCC 10004) represents a major breakthrough in wet tantalum capacitor technology. Its unique cathode system, also used in the ST, provides the highest capacitance per unit volume available. The STE/DSCC 10004 combines the inherent reliability of wet tantalum with the capacitance 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/DSCC 10004) is housed in an all tantalum, hermetically sealed case and is manufactured to withstand high stress and hazardous environments.

- Terminations: Standard tin/lead (Sn/Pb) 100 % tin available terminations
- Compliant to RoHS directive 2002/95/EC

DIMENSIONS in inches [millimeters]



Notes

- Material at egress is tantalum
- Insulation sleeving will lap over the ends of the capacitor case
- Tinned nickel leads, solderable and weldable

Approx. Weight

T1: 2.3 g, T2: 5.7 g
T3: 9.4 g, T4: 14.8 g

ORDERING INFORMATION

| STE | 6000 | 16 | T4 | M | I | E3 |
|------|-------------------|---------------------------------|-----------|--------------------------|----------------------------------|-------------------------------------------------------------------------------------------|
| TYPE | CAPACITANCE µF | DC VOLTAGE RATING AT + 85 °C | CASE SIZE | CAPACITANCE TOLERANCE | INSULATING SLEEVE | RoHS COMPLIANT |
| | | | | M = ± 20 % K = ± 10 % | I = Insulated X = Uninsulated | E3 = 100 % tin termination (RoHS compliant) Blank = SnPb termination (standard design) |

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.

ORDERING INFORMATION

| 10004 | -29 | K | S |
|---------------------|-------------|------------------------|----------------------------|
| DSCC DRAWING NUMBER | DASH NUMBER | CAPACITANCE TOLERANCE | |
| | | K = ± 10 %; M = ± 20 % | S = Sleeved; U = Unsleeved |

DEFENSE SUPPLY CENTER, COLUMBUS
COLUMBUS, OHIO

DRAWING NO.
10004

* Pb containing terminations are not RoHS compliant, exemptions may apply

Capacitor - Wet Tantalum with ESR from 0.25 Ω to 1.5 Ω at 120 Hz