



Space-Grade CWR Series Solid Tantalum Capacitors Feature T-Level Failure Rate

Vishay's conformal-coated solid tantalum capacitors have a long-standing legacy in space applications, with proven reliability over decades. The CWR06 series has been qualified to the MIL-PRF-55365 military performance specification since 1979. Later on, two more series were qualified: CWR16 (extended range) and CWR26 (Low ESR). Designed for high-reliability environments - including space, defense, and other mission-critical applications - these capacitors offer a T-Level failure rate option. Rigorous testing and stringent electrical parameters have made the CWR06 series a global benchmark for reliability. These surface-mount MnO₂ tantalum capacitors are ideal for use in hybrid circuits, filtering, power conversion, and other demanding electronic systems.



The NASA part selection guide references this military performance specification for all failure rate levels – EEE-INST-002: Instructions for EEE Parts Selection, Screening, Qualification and Derating.

The European Cooperation for Space Standardization product assurance document references the following military performance specification for surge current test and screening for burn-in: ESCC-A-ST-60-13C Rev.2.

Key Advantages

- Military-qualified
- T-level failure rate includes
 - Surge current option C
 - Weibull Failure rate screening to level C (≤0.01% per 1000 unit*hours) or lower
 - Statistical screening for DCL and ESR
 - o Radiographic inspection
 - Destructive physical analysis

Useful Links

- Product Pages
 - CWR06
 - o CWR16
 - o CWR26
- Tantalum FIT Calculator | Vishay
- Solid Tantalum Self-Healing Effect Technical Note

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