

New Tantamount™ Solid Tantalum Molded Chip Capacitors Deliver Enhanced Performance for Electronic Detonation Systems, Combine a Robust Design With Low 0.005CV DCL and Stringent Testing Specifications to Ensure Reliable Detonation in Harsh Environments

## **Product Benefits:**

- Low DCL values of 0.005CV for battery (remote / wireless) applications
- Tested to more stringent criteria than standard commercial offerings
- Feature a molded case
- Shock (100 g) and vibration (20 g) capabilities in accordance with MIL-STD-202
- Available in the B (EIA 3528-21) and C (EIA 6032-28) case sizes
- Capacitance range from 10 μF to 100 μF over voltage ratings from 16 V to 25 V
- Ripple current to 0.438 A
- High temperature operation to +125 °C
- Lead (Pb)-free terminations
- RoHS-compliant, halogen-free, and <u>Vishay Green</u>

# **Market Applications:**

Electronic detonation systems in mining and demolition applications

## The News:

Vishay Intertechnology introduces a new series of TANTAMOUNT™ surface-mount solid tantalum molded chip capacitors designed specifically for electronic detonation systems. Combining a robust mechanical design with low leakage current (DCL) and stringent testing specifications, Vishay Sprague TX3 series devices deliver enhanced performance and reliability over commercial tantalum capacitors and MLCCs.

- With their low DCL values and the high energy density of tantalum compared to other capacitive technology
   — TX3 series capacitors deliver more energy to ensure proper ignition. This makes them ideal for remote
   detonation systems with reliable discharge requirements
- The devices' tantalum anode technology, combined with Vishay's best in class dielectric formation, ensures stable electric performance in harsh environments
- To ensure reliability, each part is 100 % surge current tested using standard screening methods, and undergoes two additional screenings for key electrical characteristics to eliminate lot to lot variations
- Providing a robust solution, the devices' capacitive element and lead frame are encapsulated by hard plastic resin
- TX3 series capacitors offer higher shock and vibration capabilities than MLCCs

## The Key Specifications:

- Case sizes: B (EIA 3528-21) and C (EIA 6032-28)
- Capacitance range: 10 μF to 100 μF





# NEW PRODUCT INFORMATION Product Group: Vishay Sprague, Tantalum Capacitors / July 2024

Capacitance tolerance: ± 10 %, ± 20 %

Voltage ratings: 16 V to 25 V

• Max. ESR at +25 °C: 0.700  $\Omega$  to 2.3  $\Omega$ 

Ripple current: 0.204 A to 0.438 A

Operating temperature: -55 °C to +125 °C

#### **Availability:**

Samples and production quantities of the new solid tantalum capacitors are available now, with lead times of 10 to 12 weeks.

To access the product datasheet on the Vishay Website, go to http://www.vishay.com/ppg?40283 (TX3)

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