

## **KEMET introduces a Lead (Pb) Free, High Temperature (125°C rated) Polymer Tantalum capacitor that provides a high-frequency bulk capacitance solution.**

KEMET now offers a 125°C rated Polymer Tantalum capacitor, designated the T525 Series, which has been targeted for power management applications. This series offers all of the same advantages as KEMET's T520 KO-CAP including very low ESR, improved capacitance retention at high frequency and a benign failure mode, to go along with 125°C capability. The new T525 product offers flexibility in many applications where temperatures extremes may exist. Features of the series include:

- Polymer Cathode Technology
- Operating Temperature range -55°C to 125°C
- Lead (Pb) Free
- Extremely low ESR
- High frequency capacitance retention
- Surface-mountable
- Robust to the SMT process
- Benign failure mode
- Only 20% Voltage Derating up to 85°C
- Halogen Free Epoxy

T525 captures the best features of multilayer ceramic caps (low ESR and high frequency cap retention), aluminum electrolytics (benign failure mode), and proven solid tantalum technology (volumetric efficiency, surface mount capability, and no wear out mechanism). This series can help reduce component counts, eliminate through-hole assembly by replacing leaded aluminum capacitors, and offer a more cost effective solution to high-cost high-cap ceramic capacitors. These benefits allow the designer to save both board space and money.

The T525 series is an environmentally safe product. It is introduced as a totally lead (Pb)-free device. No KEMET product contains polybrominated biphenyls, but some products do contain Bromine as a monomer. The T525 series does not contain any bromine. The T525 series will be offered in the same EIA industry standard case sizes and packaging formats as KEMET's tantalum surface-mount capacitor lines.

This product has excellent surge current performance and long-term reliability. There is only a 20% recommended de-rating of application voltage up to 85°C. Above 85°C, per EIA guidelines, the recommended capacitor voltage rating drops to 0.8 times rated voltage at 105°C, and 0.67 times rated voltage at 125°C. The operating temperature is -55°C to +125°C.

KEMET Electronics is the largest manufacturer of solid tantalum capacitors and the fourth largest manufacturer of multilayer ceramic capacitors in the world. KEMET also offers a full line of surface mount aluminum capacitors. KEMET offers leaded and surface-mount products in both the tantalum and ceramic families. Visit KEMET on the Internet at <http://www.kemet.com> or e-mail us at [capmaster@kemet.com](mailto:capmaster@kemet.com).