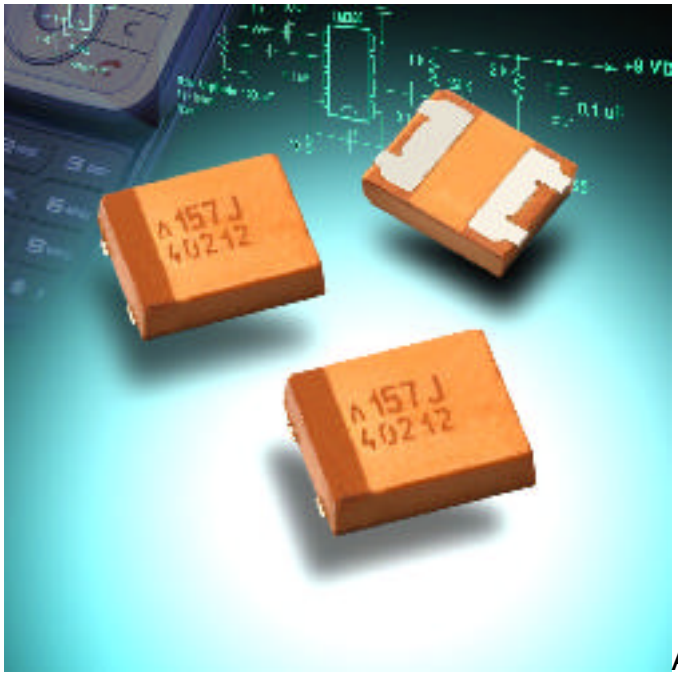
Capacitors Provide High CV Rating in a Low Profile Package



AVX Corp., a leading manufacturer of advanced passive components and interconnect solutions, has expanded its wide range of SMD tantalum polymer capacitors to deliver industry's highest CV rating in a low profile package. Ideal for small power modules and handheld devices, the TCN Series tantalum polymer capacitors use an 'undertab' design to maximize volumetric efficiency, enabling these devices to provide 150µF/6.3V rating in T and L case sizes measuring only 3.5mm x 2.8mm with a profile of only 1.2mm and 1.0mm respectively. In addition, the TCN Series polymer capacitors are suitable for continuous operation with just 20% voltage derating due to their reduced ignition failure mode and surge current robustness.
"The 150µF/6.3V tantalum polymer capacitor is a favorite choice of mobile phone manufacturers for power module stabilization applications. The new TCN Series devices continue the miniaturization trend in electronic devices, allowing designers to produce smaller, thinner mobile devices or to increase functionality within the same product dimensions," said Dan Lane, marketing manager at AVX.

Tantalum capacitors in general are more stable against changes in operational temperature and applied voltage than comparable multilayer ceramic capacitors (MLCCs). The TCN Series polymer tantalum capacitors are RoHS-compliant and contain no halogens, which top equipment manufacturers are anxious to eliminate. In addition, the conductive polymer cathode is inherently low oxygen bearing, which helps to negate ignition failures - unlike other tantalum capacitor technologies that can be susceptible to this failure mode.

The first TCN Series parts that have been released include the 150uF 6.3V devices in two 3528 case sizes - L case with a profile of 1.0mm and the T case which

measures 1.2mm high. Additional high volumetric efficiency TCN Series 'undertab' polymer capacitors will be released during 2011.

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