Panasonic Electronic Components — Marketing Announcement

ATTENTION PANASONIC DIRECT AND MANUFACTURER'S SALES REPRESENTATIVES

Panasonic Capacitors For Long Life And Harsh Environment Applications

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Film and Electrolytic Capacitors are capable of withstanding temperatures from subzero range, all the way up to beyond the boiling point of water at times. Within the Panasonic Electronic Components Film and Electrolytic Capacitor product lines, many Series are capable of withstanding subzero temperatures as low as -55°C (or -67°F), -40°C (-40°F) or -25°C (-13°F). On the high temperature end, product that can withstand 70°C (158°F), 105°C (221°F) or 125°C (257°F) are also available. Such high temperature range allows Film and Electrolytic products to be used in a variety of applications from industrial freezers to industrial boiler to automotive and also in polar/desert environments.

Film Capacitors in particular also have the capability to self heal. If a Film Capacitor is subjected to a brief spike in current, there will be a very small hole in the dielectric. Over time, the small hole will fill itself, like when an open wound on skin heals. This process is known as self healing in a Film Capacitor. What happens if that current spike isn't brief? Typically a Film Capacitor will short like all other Capacitors. However, at Panasonic most new thru-hole DC Polypropylene and all XY Capacitors have an inbuilt fuse inside them. Upon failure, the inbuilt fuse creates an open circuit situation. Examples include the ECW-F(A) Series of DC thru-hole Polypropylene Capacitors, ECQ-U(L) and ECQ-U(A) Series of XY capacitors.

Lastly, another aspect that makes all Panasonic Electronic Components Film Capacitors unique is the way the dielectric gets metalized. Typically, competition uses an alloy of Aluminum and Zinc as spray to metalize the capacitor. However, when such Capacitors are stressed under high humidity conditions, they tend to overheat contributing to an increase in dissipation factor. Dielectric material starts to melt and ultimately the Capacitor shorts. The Panasonic R&D team in Japan realized that if they use only Aluminum as spray to metalize the capacitor, the part does not overheat. Combine the Aluminum spray with the fact that select DC thru-hole Capacitors and all XY capacitors from Panasonic have an inbuilt fuse, Panasonic Film Capacitors have a safety advantage over competition.

Panasonic ideas for life