

MLCCs vs POLYMER CAPACITORS

MLCCs are one of the most common components used in our electronic designs. Their low equivalent series resistance & equivalent series inductance along with low cost are benefits. However, expanded automotive, mobile and industrial uses with limited manufacturing has led to shortages that could continue into 2020 and beyond.

Here's how to assess alternatives and resources to help you find the correct substitute for your existing or upcoming designs.

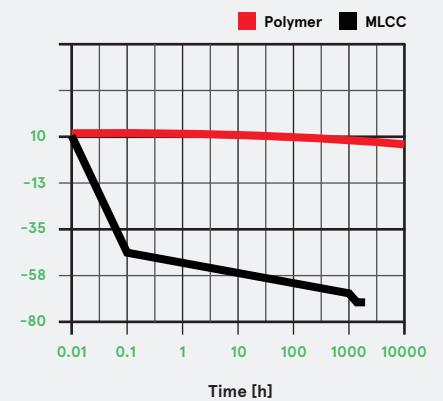
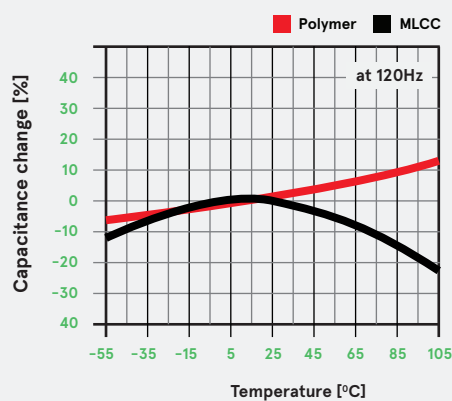
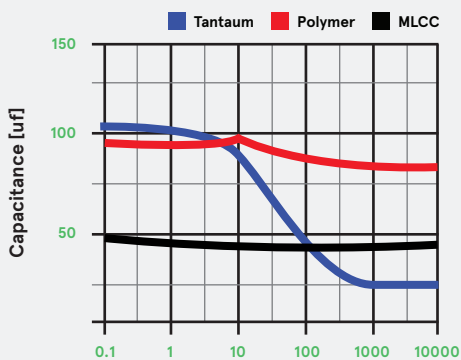
Parameters to consider include:

- Effective Capacitance
- Voltage
- DC Bias voltage
- Ripple Current (and corresponding ESR needed)
- Frequency
- DC Bias Leakage current
- Operating Temperature and range
- ISO Pulse requirements
- Aging requirements
- Board and height restraints

The best MLCC alternative is a polymer capacitor. The most common are:

- Tantalum – Polymer
- Aluminum – Polymer
- Hybrid

Benefits of polymer capacitors versus MLCCs are:



Choosing the right alternate for your application

To decide which type of capacitor is best, take a detailed look at your existing or future design with the key parameters listed.

Avnet's has a variety of polymer capacitors alternatives to get you through the MLCC shortage.

[Learn more at **newark.com/survive-mlcc-shortage**](https://www.newark.com/survive-mlcc-shortage)