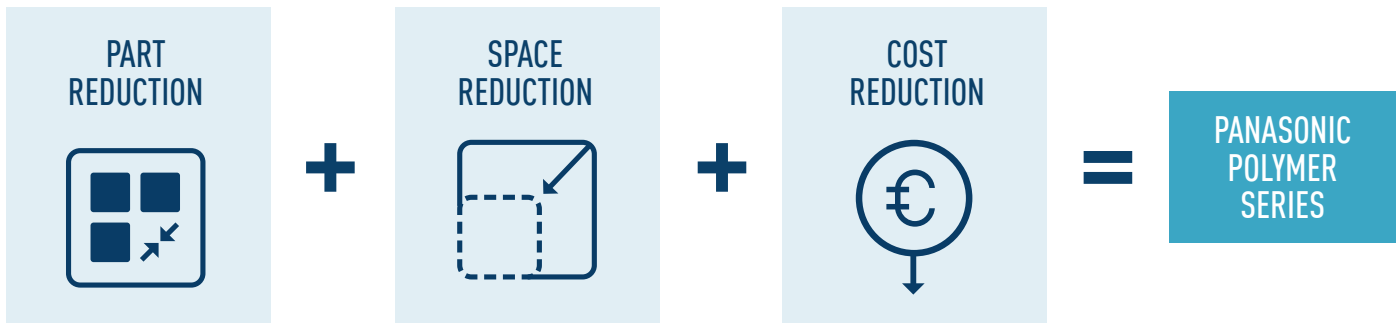


S.O.S. Short on MLCCs? Choose Panasonic Polymer Series!



Drop-in replacement for MLCC if:

- Voltage 2 – 35V
- Capacitance required $\geq 47\mu\text{F}$
- B and D case sizes
- Non AECQ-200 compliant

Two easy steps to identify your right fit ...

1. Voltage No derating required:

MLCC with derating	Conductive Polymer Capacitor Voltage
6.3V or 10V	~3V to 5V
10V or 16V	~6.3V to 10V
16V or 25V	~12V to 20V
25V or 50V	~20V to 35V

2. Smoothing Circuits dependent up on:

Choose	Size	Capacitance	Low ESR	Ripple Current	Temperature	Automotive
SP-Cap	✓	✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓	—
POSCAP	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ *
OS-CON	✓ ✓	✓ ✓ ✓	✓ ✓	✓ ✓ ✓	✓ ✓	✓ *
HYBRIDS	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓ ✓	✓ ✓ ✓
MLCC	✓ ✓	✓	✓ ✓ ✓	✓ ✓ ✓	—	✓ ✓

* Only infotainment or non-safety critical circuits

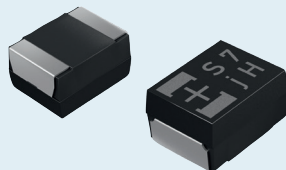
S.O.S. Short on MLCCs? Choose Panasonic Polymer Series!

SP-Cap



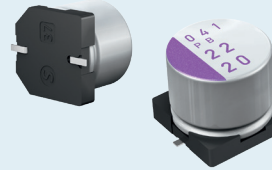
- Voltage: 2 to 6.3 VDC
- Cap: 2.2 μ F to 820 μ F
- Ripple up to 10.2Arms
- Lowest ESL/ESR: 1nH/3m Ω

POSCAP



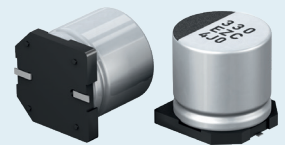
- Voltage: 2 to 35 VDC
- Cap: 3.9 μ F to 1500 μ F
- Size: 3.5x2.8 to 7.3x4.3mm
- ESR: as low as 5m Ω

OS-CON



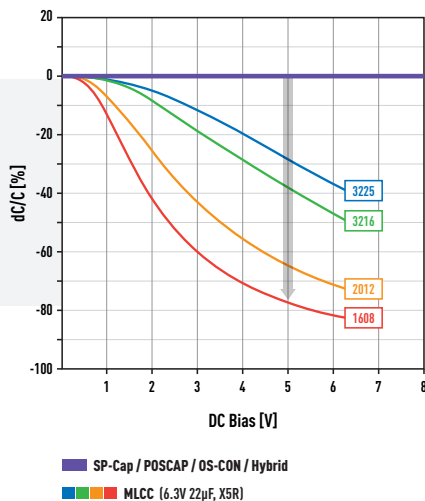
- Voltage: 2 to 100 VDC
- Cap: 3.3 μ F to 2700 μ F
- Ripple up to 7.2Arms
- ESR: as low as 5m Ω

Hybrid

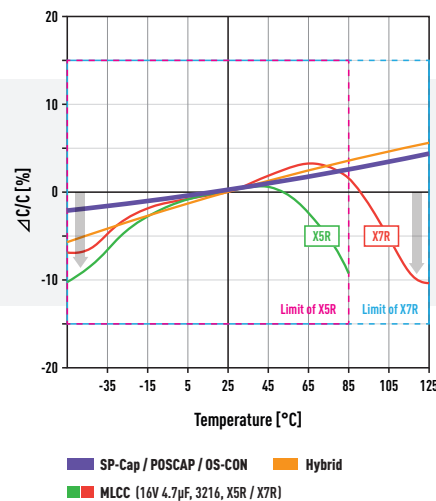


- Voltage: 25 to 80 VDC
- Temp: Up to 150°C
- Ripple up to 4.0Arms
- AECQ-200 Compliant

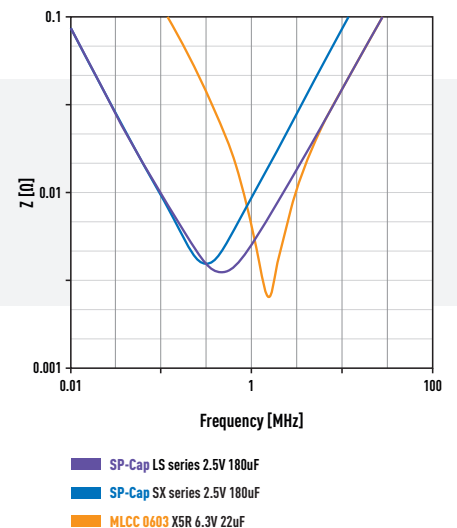
DC BIAS BEHAVIOUR
OF POLYMER VS. MLCC



TEMPERATURE BEHAVIOUR OF
POLYMER VS. MLCC



IMPEDANCE BEHAVIOUR
OF POLYMER VS. MLCC



Panasonic offers :

- Four variations in Polymer dielectric capacitors
- Including chip and can-type (SMD & THT).
- No derating and DC bias unlike MLCCs
- Physically more robust, longer lifetimes and safe-failure modes (no-burning)

With higher ripple current, stable ESR and capacitance across broad temperature and frequency spectrum, Polymer capacitors also offer value against Electrolytics for efficient designs.

For more information please visit: industry.panasonic.eu