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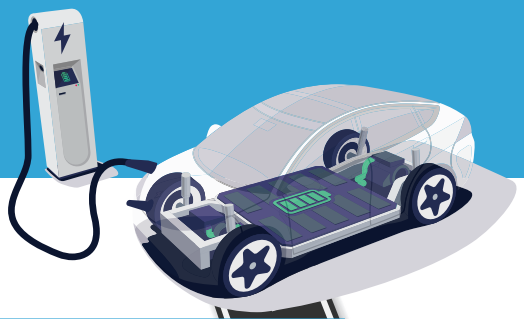
Capacitor Roles in Electric Vehicles



& the charging systems they are frequently found inside of

These capacitors are used in every level and method of charging

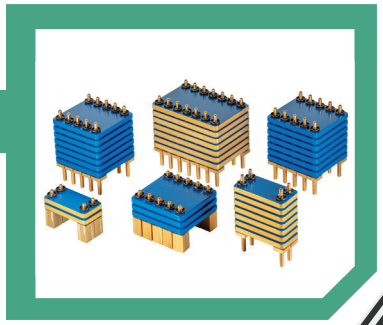
DC-LINK/ DC-BLOCKING

Ceramic capacitors can be found as the DC-Blocking capacitors or supporting filters to the DC-Link.

Power Stages:
- DC/DC Converters
- AC/DC Converters

Applications:
- On Board Chargers
- Off Board Chargers
- DC-Fast Chargers

RESONANT CAPACITORS



Ceramic capacitors can be used as resonant capacitors, typically with multiple in parallel, forming the "Resonant Tank".

Power Stages:
- DC/DC Resonant Converters

Applications:
- On Board Chargers
- Off Board Chargers
- DC-Fast Chargers

SNUBBER CAPACITORS

Ceramic capacitors are a popular choice to fill the snubber role.

Power Stages
- DC/DC Converters
- AC/DC Converters

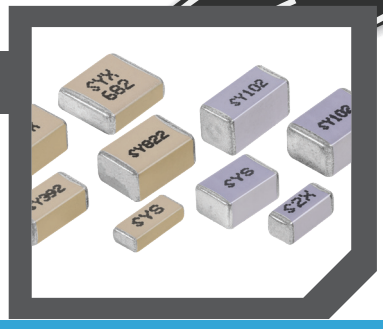
Applications:
- On Board Chargers
- Off Board Chargers
- DC-Fast Chargers
- Wireless Charging

FLYING CAPACITORS

Ceramic capacitors are a popular choice to fill the role of flying capacitor.

Applications:
- Multi-Level Inverters/Converters
- Battery Management Systems

FILTERING CAPACITORS



Ceramic capacitors are very popular to be used as any of the filtering roles, such as: EMI Filter, Safety Certified Capacitors, Bypass, Decoupling, or X/Y Filters.

Power Stages:
- All

Applications:
- All