Murata Ultra Broadband Silicon Capacitors up to 220GHz

- High stability in temperature: up to 250°C environments
- Signal stability over frequency: up to 110 GHz applications
- Stability regarding voltage: for 1000 V applications
- Stability over ageing: minimum lifetime of 10 years
- Extreme low thickness: down to less than 50 µm

Capacitance value depends on electrode surface.

3D Silicon structures enable a higher capacitance density.
Differential AC coupling
For Ultra Broadband Signal Lines
Extreme compactness for differential pair lines routing and bias-T integration

- Standard MLCC Solution
  - High electrical parasitics
  - No differential pair lines
  - Long routing

- Standard Silicon Capacitor (ULSC, BBSC, UBSC, XBSC)
  - Ultra-low parasitics
  - Pseudo differential pair lines
  - No GND void required
  - Ultra low insertion loss
  - Less cross talk

- Standard Differential Si. Capacitors Pair (UBDC)
  - Same advantages as Silicon Capacitor plus:
    - PCB saving
    - Perfectly differential
    - Higher signal/noise ratio

- Custom Quad Differential Pairs
  - Optimized for Silicon Photonics Transceivers

Insertion loss

- Murata’s UBSC Si Cap.
- Broadband MLCC
- Murata’s QRM MLCC
Learn more about our Silicon Capacitors thanks to our web portal www.murata.com or through our dedicated catalog: