PRODUCTS

Surface Mount Multilayer Ceramic Capacitors for High Power Applications

HiQ-CBR Series (RF & Microwave)

Electronic Components
KEMET
CHARGED.

Why Choose KEMET

KEMET Electronics Corporation is a leading global supplier of electronic components. We offer our customers the broadest selection of capacitor technologies in the industry, along with an expanding range of electromechanical devices, electromagnetic compatibility solutions and supercapacitors. Our vision is to be the preferred supplier of electronic component solutions for customers demanding the highest standards of quality, delivery and service.

Features & Benefits

- Ultra high Q
- Base metal electrode (BME) dielectric system
- Pb-free and RoHS compliant
- No piezoelectric noise
- Low ESR
- High thermal stability
- No capacitance change with respect to applied rated DC voltage
- Negligible capacitance change with respect to temperature
- No capacitance decay with time
- Non-polar device, minimizing installation concerns
- 100% pure matte tin-plated termination finish allowing for excellent solderability

Product Checklist

- Do you have a radio frequency or microwave application?
- Is low loss performance (high Q) required?
- Is stability of capacitance required?
- Do you require high self-resonance frequency characteristics?
- Do you require a capacitor that is well suited for resonant circuit applications?

For more information, samples and engineering kits, please visit us at www.kemet.com or call 1.877.myKEMET.

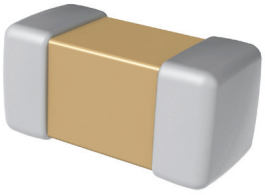
Applications

Field applications:

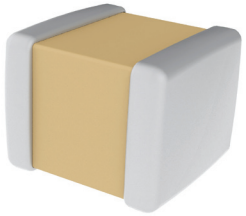
- Wireless and cellular base stations
- Wireless LAN
- Subscriber-based wireless services
- Wireless broadcast equipment
- Satellite communications
- RF power amplifier (PA) modules
- Filters
- Voltage-controlled oscillators (VCOs)
- PAs
- Matching networks
- RF modules
- Medical electronics

Typical applications:

- Critical timing
- Tuning
- Bypass
- Coupling
- Feedback
- Filtering
- Impedance matching
- DC blocking



HiQ-CBR



Ultra HiQ-CBR Squared

KEMET Electrical/Physical Characteristics

Ultra HiQ-CBR Squared Series

Case Size	Typical ESR Ω (10 pF at 1 GHz)	Dielectric	Operating Frequency Range	Operating Temperature Range	Temp Coefficient (TCC)	Capacitance Range	Max Voltage (VDC)
0505	< 0.068	C0G	1 MHz – 50 GHz	–55°C to + 125°C	0 ± 30 ppm/°C	0.4 – 100 pF	250

HiQ-CBR Series (EIA Case Sizes)

Case Size	Typical ESR Ω (10 pF at 1 GHz)	Dielectric	Operating Frequency Range	Operating Temperature Range	Temp Coefficient (TCC)	Capacitance Range	Max Voltage (VDC)
0201	–	C0G	1 MHz – 50 GHz	–55°C to + 125°C	0 ± 30 ppm/°C (0 ± 60 ppm/°C for 0201 case size product ≥ 22 pF)	0.1 – 33 pF	50
0402	< 0.095					0.1 – 100 pF	200
0603	< 0.100					0.3 – 100 pF	250
0805	< 0.085					0.3 – 100 pF	500