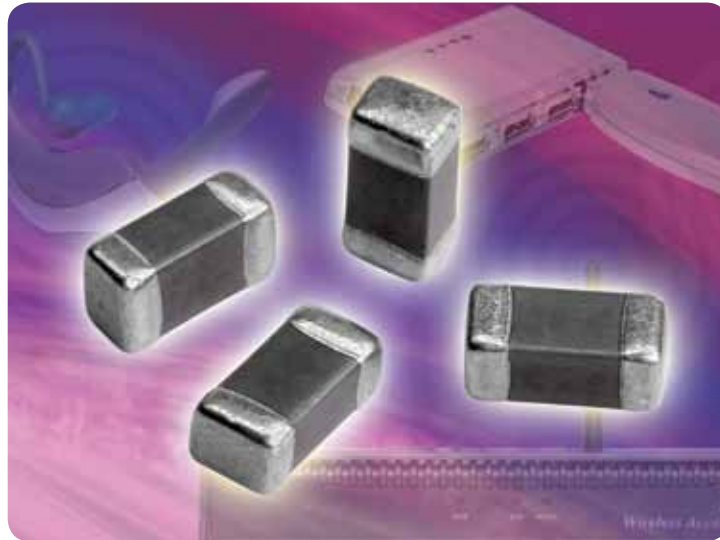




MULTILAYER CERAMIC CHIP CAPACITORS

VJ...W1BC High Q Dielectric

Surface-Mount MLCC Capacitors for High Q Commodity Applications



KEY BENEFITS

- Ultra-stable Class 1 dielectric
- High Q and low ESR at high frequency
- High capacitance per unit volume
- 100 % tin terminations
- Available in standard sizes: 0402, 0603
- Compliant to RoHS Direction 2011/65/EU
- Halogen-free according to IEC 61249-2-21 definition

APPLICATIONS

- Mobile telecommunications
- WLAN
- RF modules
- Tuners

RESOURCES

- Datasheet: VJ...W1BC High-Q Dielectric - <http://www.vishay.com/doc?28534>
- For technical questions contact mlcc@vishay.com

Capacitors - High Q and Low ESR at High Frequency

One of the World's Largest Manufacturers of
Discrete Semiconductors and Passive Components



MULTILAYER CERAMIC CHIP CAPACITORS

VJ...W1BC High Q Dielectric

Surface Mount Multilayer Ceramic Chip Capacitors for High Q Commodity Applications



RoHS
COMPLIANT
HALOGEN
FREE

FEATURES

- Ultra stable class 1 dielectric
- High Q and low ESR at high frequency
- Four standard sizes
- High capacitance per unit volume
- Supplied in tape on reel
- For high frequency applications
- Ni-barrier with 100 % tin terminations
- Dry sheet manufacturing technology
- Noble Metal Electrode system (NME)
- Compliant to RoHS Directive 2011/65/EU
- Halogen-free according to IEC 61249-2-21 definition

APPLICATIONS

- Mobile telecommunication
- WLAN
- RF modules
- Tuner

ELECTRICAL SPECIFICATIONS

Note

- Electrical characteristics at 25 °C, 30 % to 70 % related humidity, unless otherwise specified

Operating Temperature: - 55 °C to + 125 °C

Capacitance Range: 0.5 pF to 3300 pF

Voltage Range: 16 V_{DC} to 100 V_{DC}

Temperature Coefficient of Capacitance (TCC):
± 30 ppm/°C from - 55 °C to + 125 °C

Dissipation Factor:

Cap. < 30 pF: Q ≥ 400 + 20 C
Cap. ≥ 30 pF: Q ≥ 1000

Test Conditions for Capacitance and DF Measurement

Cap. ≤ 1000 pF 1.0 V_{RMS} ± 0.2 V_{RMS}, 1 MHz ± 10 %
Cap. > 1000 pF 1.0 V_{RMS} ± 0.2 V_{RMS}, 1 kHz ± 10 %

SELECTION CHART		HIGH Q							
DIELECTRIC		VJ0402				VJ0603			
STYLE		0402				0603			
SIZE CODE		16 V	25 V	50 V	100 V	16 V	25 V	50 V	100 V
VOLTAGE (V _{DC})		J	X	A	B	J	X	A	B
VOLTAGE CODE									
CAP. CODE	CAP.								
0R5	0.5 pF		N	N			S	S	S
1R0	1.0 pF		N	N			S	S	S
1R2	1.2 pF		N	N			S	S	S
1R5	1.5 pF		N	N			S	S	S
1R8	1.8 pF		N	N			S	S	S
2R2	2.2 pF		N	N			S	S	S
2R7	2.7 pF		N	N			S	S	S
3R3	3.3 pF		N	N			S	S	S
3R9	3.9 pF		N	N			S	S	S
4R7	4.7 pF		N	N			S	S	S
5R6	5.6 pF		N	N			S	S	S
6R8	6.8 pF		N	N			S	S	S
8R2	8.2 pF		N	N			S	S	S
100	10 pF		N	N			S	S	S
120	12 pF		N	N			S	S	S
150	15 pF		N	N			S	S	S
180	18 pF		N	N			S	S	S
220	22 pF		N	N			S	S	S
270	27 pF		N	N			S	S	S
330	33 pF		N	N			S	S	S
390	39 pF		N	N			S	S	S
470	47 pF		N	N			S	S	S
560	56 pF		N	N			S	S	S
680	68 pF		N	N			S	S	S
820	82 pF		N	N			S	S	S
101	100 pF		N	N			S	S	S
121	120 pF		N	N			S	S	S
151	150 pF		N	N			S	S	S
181	180 pF		N	N			S	S	S
221	220 pF		N	N			S	S	S
271	270 pF		N	N			S	S	S
331	330 pF		N	N			S	S	S
391	390 pF		N	N			S	S	S
471	470 pF		N	N			S	S	S
561	560 pF						S	S	S
681	680 pF						S	S	S
821	820 pF						S	S	S
102	1000 pF						S	S	S
122	1200 pF					X	X	X	
152	1500 pF					X	X	X	
182	1800 pF					X	X	X	
222	2200 pF					X	X	X	
272	2700 pF					X	X	X	
332	3300 pF					X	X	X	
472	4700 pF								
562	5600 pF								
682	6800 pF								
822	8200 pF								
103	10 000 pF								

Note

- Letters indicate product thickness, see packaging quantities

ORDERING INFORMATION							
VJ0402	Q	101	F	X	J	C	W1BC
SIZE CODE	DIELECTRIC	CAPACITANCE	TOLERANCE	TERMINATION	VOLTAGE	PACKAGING	PROCESS CODE FOR BASIC COMMODITY
0402 0603	Q = High Q	Two significant digits followed by the number of zeros: 1R0 = 1.0 pF 101 = 100 pF	Cap. value ≤ 5 pF B = ± 0.10 pF C = ± 0.25 pF 5 pF > Cap. value < 10 pF D = ± 0.50 pF Cap. value ≥ 10 pF F = ± 1 % G = ± 2 % J = ± 5 %	X = Ni barrier 100 % tin termination	J = 16 V X = 25 V A = 50 V B = 100 V	C = 7" reel/ paper P = 13" reel/ paper	