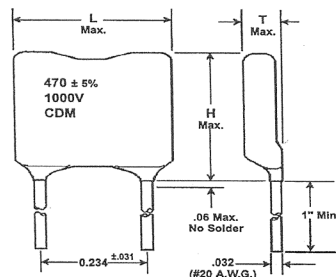


Type CD16 & CDV16 Snubber and RF Application, Mica Capacitors

Higher dV/dt Capability and Flatter Insertion Loss



Ideal for snubber and RF applications, CDV16 mica capacitors now handle dV/dts up to 275,000 V/ μ s and they assure controlled, resonance-free performance through 1 GHz. CDV16/CD16 mica capacitors excel in both snubber applications and high-frequency applications like RF and CATV. Type CDV16's high pulse current capability make them ideal for pulse and snubber applications. CDV16 capacitors withstand an unlimited number of pulses with a dV/dt of 275,000 V/ μ s. This is a 20% increase in dV/dt capability when compared to our CDV19 mica capacitors and CDV16's are smaller too. CDV16 capacitors handle higher peak currents — up to 825 amps. They also handle high continuous RMS current at 5 MHz and up to 30 MHz. For example, a 3000 pF CDV16 capacitor handles 6.2 A rms continuously at 13.56 MHz and it is 1/4 the cost of a comparable porcelain ceramic capacitor. In addition to being great for snubbers, CDV16 is a fit for your RF applications. Their compact size and closer lead spacing improves insertion loss performance — insertion loss data is flat within ± 0.2 dB, typically to beyond a gigahertz.

Highlights

- Handles up to 9.0 amps rms continuous current
- Very low ESR from 10 to 100 MHz
- Low, notch-free impedance to 1GHz
- Stable: no capacitance change with (V), (t), and (f)
- Very high Q at UHF/VHF frequencies
- Tape and reeling available
- dV/dt capability up to 275,000 V/ μ s
- 1,500 amps peak current capability

Specifications

Capacitance Range:	100 pF to 7,500 pF
Capacitance Tolerance:	$\pm 5\%$ (J) standard; $\pm 1\%$ (F) and $\pm 2\%$ (G) available
Voltage:	500 Vdc & 1,000 Vdc
Temperature Range:	-55°C to $+150^{\circ}\text{C}$

Part Numbering System

CD16 / CDV16	F	D / F	101	J	O	3	F						
Series	Characteristic Code	Voltage (Vdc)	Capacitance (pF)	Capacitance Tolerance	Temperature Range	Vibration Grade	Blank = Not Specified F= RoHS Compliant						
		D = 500 Vdc F = 1000 Vdc	101 = 100 pF 102 = 1000 pF		O = -55 °C to +125 °C P = -55 °C to +150 °C								
Characteristics				Vibration Grade									
Code	Temp. Coeff. ppm/ °C	Capacitance Drift	Standard Cap. Range										
F	0 to +70	±(0.05% +0.1 pF)	91 pF and up										
				<table><tr><th>No.</th><th>MIL-STD-202</th><th>Vibration Condition (Hz)</th></tr><tr><td>3</td><td>Method 204 Condition D</td><td>10 to 2,000</td></tr></table>				No.	MIL-STD-202	Vibration Condition (Hz)	3	Method 204 Condition D	10 to 2,000
No.	MIL-STD-202	Vibration Condition (Hz)											
3	Method 204 Condition D	10 to 2,000											

Standard vibration grade is 3

Capacitance Tolerance

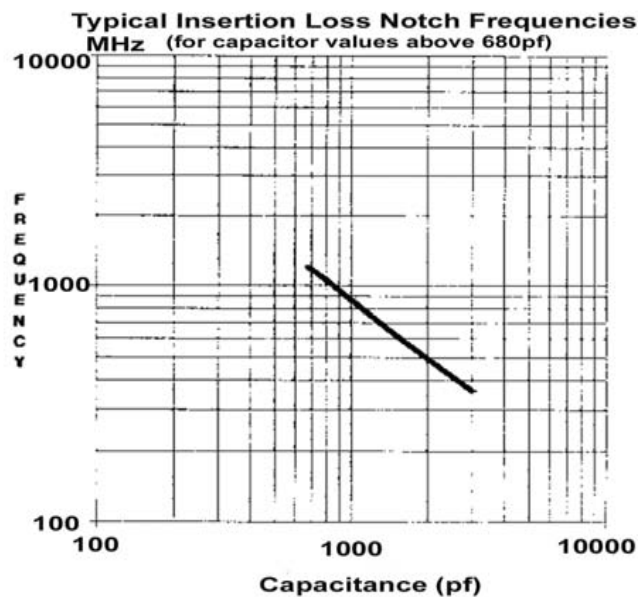
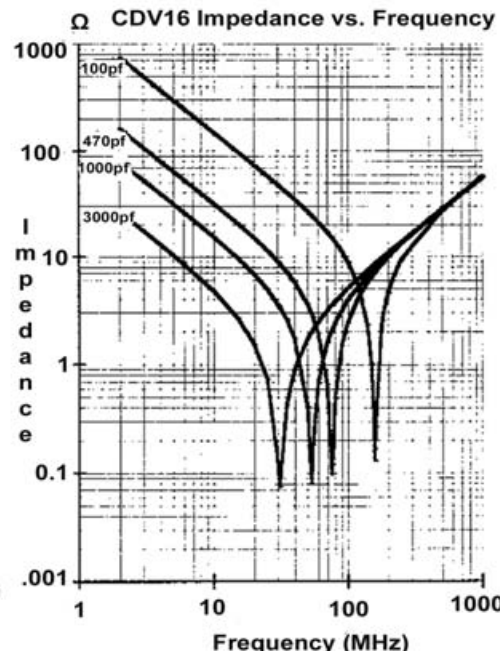
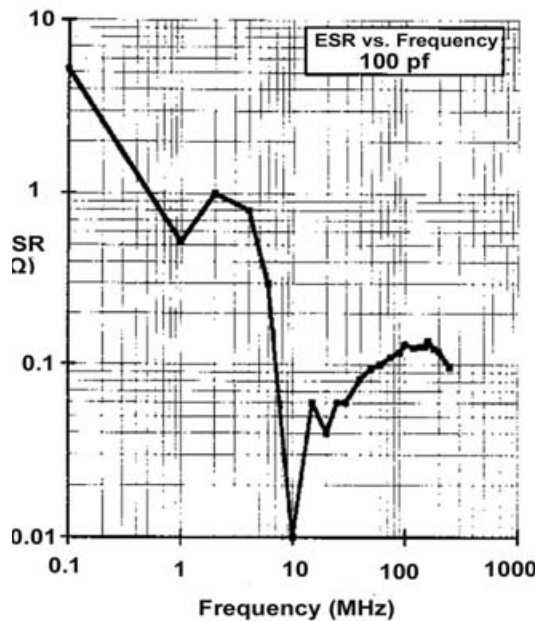
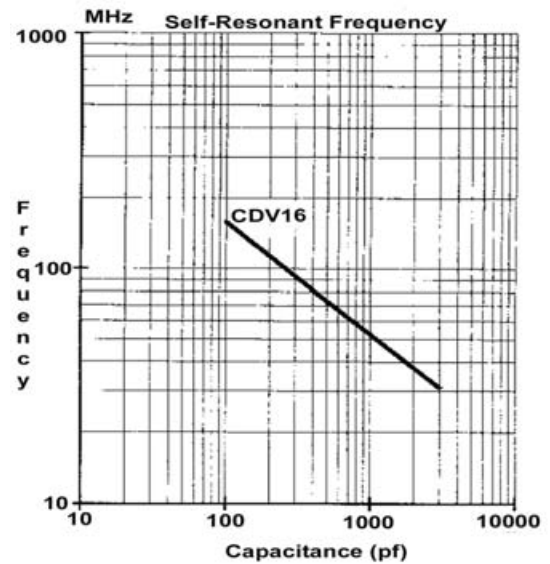
Tol. Code	Tolerance
F	$\pm 1\%$
G	$\pm 2\%$
J	$\pm 5\%$

Standard tolerance is $\pm 5\%$

For RoHS compliant add the letter F at the end of the part number.

Type CD16 & CDV16 Snubber and RF Application, Mica Capacitors

Typical Performance Curves



Type CD16 & CDV16 Snubber and RF Application, Mica Capacitors

Ratings

Cap. (pF)	Catalog Part Number	L in (mm)	H in (mm)	T in (mm)	Ipk Amps	Max Continuous Current @ 85°C, Amps					
						100kHz	250 kHz	500 kHz	1MHz	2.5MHz	5MHz
500 Vdc (300 Vac)											
100	CD16FD101JO3	.43 (10.9)	.46 (11.7)	0.15 (3.8)	20	0.019	0.047	0.09	0.19	0.47	0.78
120	CD16FD121JO3	.43 (10.9)	.46 (11.7)	0.15 (3.8)	24	0.023	0.057	0.11	0.23	0.57	0.86
150	CD16FD151JO3	.43 (10.9)	.46 (11.7)	0.15 (3.8)	30	0.028	0.071	0.14	0.28	0.71	0.96
180	CD16FD181JO3	.43 (10.9)	.46 (11.7)	0.15 (3.8)	36	0.034	0.085	0.17	0.34	0.85	1.1
220	CD16FD221JO3	.43 (10.9)	.46 (11.7)	0.15 (3.8)	44	0.041	0.10	0.21	0.41	1.0	1.2
270	CD16FD271JO3	.45 (11.4)	.47 (11.9)	0.16 (4.1)	54	0.051	0.13	0.25	0.51	1.3	1.3
330	CD16FD331JO3	.45 (11.4)	.47 (11.9)	0.16 (4.1)	66	0.062	0.16	0.31	0.62	1.5	1.5
390	CD16FD391JO3	.45 (11.4)	.47 (11.9)	0.16 (4.1)	78	0.074	0.18	0.37	0.74	1.6	1.6
470	CD16FD471JO3	.45 (11.4)	.47 (11.9)	0.16 (4.1)	94	0.089	0.22	0.44	0.89	1.8	1.8
560	CD16FD561JO3	.46 (11.7)	.50 (12.7)	0.18 (4.6)	110	0.11	0.26	0.53	1.1	2.0	2.0
680	CD16FD681JO3	.46 (11.7)	.50 (12.7)	0.18 (4.6)	160	0.15	0.39	0.77	1.5	2.5	2.5
820	CD16FD821JO3	.46 (11.7)	.50 (12.7)	0.18 (4.6)	160	0.15	0.39	0.77	1.5	2.5	2.5
1000	CD16FD102JO3	.46 (11.7)	.50 (12.7)	0.18 (4.6)	200	0.19	0.47	0.94	1.9	2.7	2.7
1200	CD16FD122JO3	.46 (11.7)	.50 (12.7)	0.18 (4.6)	240	0.23	0.57	1.1	2.3	3.0	3.0
1500	CD16FD152JO3	.46 (11.7)	.50 (12.7)	0.18 (4.6)	300	0.28	0.71	1.4	2.7	3.3	3.3
1800*	CD16FD182JO3	.47 (11.9)	.52 (13.2)	0.25 (6.4)	360	0.34	0.85	1.7	3.4	4.1	4.1
2200	CD16FD222JO3	.47 (11.9)	.52 (13.2)	0.25 (6.4)	440	0.41	1.0	2.1	4.1	4.5	4.5
2700	CD16FD272JO3	.47 (11.9)	.52 (13.2)	0.25 (6.4)	540	0.51	1.3	2.5	5.0	5.0	5.0
3000	CD16FD302JO3	.47 (11.9)	.52 (13.2)	0.25 (6.4)	600	0.57	1.4	2.8	5.2	5.2	5.2
3300	CD16FD332JO3	.48 (12.2)	.53 (13.7)	0.28 (7.1)	600	0.57	1.4	2.8	5.7	6.8	6.8
3600	CD16FD362JO3	.48 (12.2)	.53 (13.7)	0.28 (7.1)	720	0.68	1.7	3.4	6.8	7.1	7.1
3900	CD16FD392JO3	.48 (12.2)	.54 (13.7)	0.28 (7.1)	780	0.74	1.8	3.7	7.4	7.4	7.4
4300	CD16FD432JO3	.48 (12.2)	.54 (13.7)	0.28 (7.1)	860	0.81	2.0	4.0	7.0	7.8	7.8
4700	CD16FD472JO3	.49 (12.5)	.56 (14.2)	0.31 (7.9)	940	0.89	2.2	4.4	8.5	8.5	8.5
5600	CD16FD562JO3	.49 (12.5)	.56 (14.2)	0.33 (8.4)	1100	1.1	2.6	5.3	9.0	9.0	9.0
6800	CD16FD682JO3	.50 (12.7)	.57 (14.7)	0.38 (9.7)	1300	1.3	3.2	6.4	9.0	9.0	9.0
7500	CD16FD752JO3	.50 (12.7)	.58 (14.7)	.40 (10.2)	1500	1.4	3.5	7.1	9.0	9.0	9.0
1,000 Vdc (350 Vac)											
100	CDV16FF101JO3	.43 (10.9)	.46 (11.7)	.15 (3.8)	23	0.022	0.055	0.11	0.22	0.55	0.92
120	CDV16FF121JO3	.43 (10.9)	.46 (11.7)	.15 (3.8)	27	0.026	0.066	0.13	0.26	0.66	1
130	CDV16FF131JO3	.43 (10.9)	.46 (11.7)	.15 (3.8)	29	0.029	0.071	0.14	0.29	0.71	1.1
150	CDV16FF151JO3	.43 (10.9)	.46 (11.7)	.15 (3.8)	34	0.033	0.082	0.16	0.33	0.82	1.1
180	CDV16FF181JO3	.43 (10.9)	.46 (11.7)	.15 (3.8)	41	0.04	0.10	0.2	0.4	1.0	1.2
200	CDV16FF201JO3	.43 (10.9)	.46 (11.7)	.15 (3.8)	45	0.044	0.11	0.22	0.44	1.1	1.3
220	CDV16FF221JO3	.43 (10.9)	.46 (11.7)	.15 (3.8)	50	0.048	0.12	0.24	0.48	1.2	1.4
240	CDV16FF241JO3	.43 (10.9)	.46 (11.7)	.15 (3.8)	54	0.053	0.13	0.26	0.53	1.3	1.4
270	CDV16FF271JO3	.45 (11.4)	.47 (11.9)	.16 (4.1)	61	0.059	0.15	0.3	0.59	1.5	1.6
300	CDV16FF301JO3	.45 (11.4)	.47 (11.9)	.16 (4.1)	68	0.066	0.16	0.33	0.7	1.6	1.7
330	CDV16FF331JO3	.45 (11.4)	.47 (11.9)	.16 (4.1)	74	0.073	0.18	0.36	0.73	1.8	1.8
360	CDV16FF361JO3	.45 (11.4)	.47 (11.9)	.16 (4.1)	81	0.079	0.2	0.4	0.79	1.8	1.8
390	CDV16FF391JO3	.45 (11.4)	.47 (11.9)	.16 (4.1)	88	0.086	0.21	0.43	0.86	1.9	1.9
420	CDV16FF421JO3	.45 (11.4)	.47 (11.9)	.16 (4.1)	95	0.092	0.23	0.46	0.92	2	2.0
430	CDV16FF431JO3	.45 (11.4)	.47 (11.9)	.16 (4.1)	97	0.095	0.24	0.47	0.95	2.0	2.0
470	CDV16FF471JO3	.45 (11.4)	.47 (11.9)	.16 (4.1)	106	0.1	0.26	0.52	1	2.1	2.1
500	CDV16FF501JO3	.45 (11.4)	.47 (11.9)	.16 (4.1)	113	0.11	0.27	0.55	1.1	2.2	2.2
510	CDV16FF511JO3	.45 (11.4)	.47 (11.9)	.16 (4.1)	115	0.11	0.28	0.56	1.1	2.2	2.2
560	CDV16FF561JO3	.46 (11.7)	.50 (12.7)	.17 (4.4)	126	0.12	0.31	0.62	1.2	2.4	2.4
620	CDV16FF621JO3	.46 (11.7)	.50 (12.7)	.17 (4.4)	140	0.14	0.34	0.68	1.4	2.5	2.5
680	CDV16FF681JO3	.46 (11.7)	.50 (12.7)	.17 (4.4)	153	0.15	0.37	0.75	1.5	2.7	2.7
750	CDV16FF751JO3	.46 (11.7)	.50 (12.7)	.17 (4.4)	169	0.16	0.41	0.82	1.6	2.8	2.8
820	CDV16FF821JO3	.46 (11.7)	.50 (12.7)	.17 (4.4)	185	0.18	0.45	0.9	1.8	2.9	2.9
910	CDV16FF911JO3	.46 (11.7)	.50 (12.7)	.17 (4.4)	205	0.2	0.5	1	2	3.1	3.1
1000	CDV16FF102JO3	.46 (11.7)	.50 (12.7)	.17 (4.4)	225	0.22	0.55	1.1	2.2	3.2	3.2
1200	CDV16FF122JO3	.46 (11.7)	.50 (12.7)	.17 (4.4)	270	0.26	0.66	1.3	2.6	3.5	3.5
1300	CDV16FF132JO3	.46 (11.7)	.50 (12.7)	.17 (4.4)	293	0.29	0.71	1.4	2.9	3.7	3.7
1500	CDV16FF152JO3	.46 (11.7)	.50 (12.7)	.18 (4.6)	338	0.33	0.82	1.6	3.3	3.9	3.9
1800*	CDV16FF182JO3	.47 (11.9)	.52 (13.2)	.25 (6.4)	495	0.4	0.99	2	4	4.8	4.8
2000	CDV16FF202JO3	.47 (11.9)	.52 (13.2)	.25 (6.4)	605	0.48	1.2	2.4	4.8	5.3	5.3
2200	CDV16FF222JO3	.47 (11.9)	.52 (13.2)	.25 (6.4)	605	0.48	1.2	2.4	4.8	5.3	5.3
2400	CDV16FF242JO3	.47 (11.9)	.52 (13.2)	.25 (6.4)	660	0.53	1.3	2.6	5.3	5.5	5.5
2700	CDV16FF272JO3	.47 (11.9)	.52 (13.2)	.25 (6.4)	743	0.59	1.5	3	5.8	5.8	5.8
3000	CDV16FF302JO3	.47 (11.9)	.52 (13.2)	.25 (6.4)	825	0.66	1.6	3.3	6.2	6.2	6.2

* Best RF performances is = to or < this cap rating.

Type CD16 & CDV16 Snubber and RF Application, Mica Capacitors

Notice and Disclaimer: All product drawings, descriptions, specifications, statements, information and data (collectively, the "Information") in this datasheet or other publication are subject to change. The customer is responsible for checking, confirming and verifying the extent to which the Information contained in this datasheet or other publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without any guarantee, warranty, representation or responsibility of any kind, expressed or implied. Statements of suitability for certain applications are based on the knowledge that the Cornell Dubilier company providing such statements ("Cornell Dubilier") has of operating conditions that such Cornell Dubilier company regards as typical for such applications, but are not intended to constitute any guarantee, warranty or representation regarding any such matter – and Cornell Dubilier specifically and expressly disclaims any guarantee, warranty or representation concerning the suitability for a specific customer application, use, storage, transportation, or operating environment. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by Cornell Dubilier with reference to the use of any Cornell Dubilier products is given gratis (unless otherwise specified by Cornell Dubilier), and Cornell Dubilier assumes no obligation or liability for the advice given or results obtained. Although Cornell Dubilier strives to apply the most stringent quality and safety standards regarding the design and manufacturing of its products, in light of the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies or other appropriate protective measures) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage. Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated in such warnings, cautions and notes, or that other safety measures may not be required.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Cornell Dubilier:

[CDV16FF681JO3](#) [CDV16FF821JO3](#) [CDV16FF271JO3](#) [CDV16FF302JO3](#) [CDV16FF121JO3](#) [CDV16FF471JO3](#)
[CDV16FF511JO3](#) [CDV16FF431JO3](#) [CDV16FF102JO3](#) [CD16FD121JO3](#) [CD16FD122JO3](#) [CD16FD131JO3](#)
[CD16FD132JO3](#) [CD16FD151JO3](#) [CD16FD152JO3](#) [CD16FD181JO3](#) [CD16FD182JO3](#) [CD16FD201JO3](#)
[CD16FD202JO3](#) [CD16FD221JO3](#) [CD16FD222JO3](#) [CD16FD241JO3](#) [CD16FD242JO3](#) [CD16FD271JO3](#)
[CD16FD272JO3](#) [CD16FD301JO3](#) [CD16FD302JO3](#) [CD16FD361JO3](#) [CD16FD391JO3](#) [CD16FD421JO3](#)
[CD16FD431JO3](#) [CD16FD471JO3](#) [CD16FD501JO3](#) [CD16FD511JO3](#) [CD16FD561JO3](#) [CD16FD621JO3](#)
[CD16FD681JO3](#) [CD16FD751JO3](#) [CD16FD821JO3](#) [CD16FD911JO3](#) [CDV16FF101JO3](#) [CDV16FF101JO3F](#)
[CDV16FF102JO3F](#) [CDV16FF121JO3F](#) [CDV16FF122JO3F](#) [CDV16FF131JO3](#) [CDV16FF131JO3F](#) [CDV16FF132JO3](#)
[CDV16FF132JO3F](#) [CDV16FF151JO3F](#) [CDV16FF152JO3](#) [CDV16FF152JO3F](#) [CDV16FF181JO3](#)
[CDV16FF181JO3F](#) [CDV16FF182JO3F](#) [CDV16FF201JO3](#) [CDV16FF201JO3F](#) [CDV16FF202JO3](#) [CDV16FF202JO3F](#)
[CDV16FF221JO3](#) [CDV16FF221JO3F](#) [CDV16FF222JO3](#) [CDV16FF222JO3F](#) [CDV16FF241JO3F](#) [CDV16FF242JO3](#)
[CDV16FF242JO3F](#) [CDV16FF271JO3F](#) [CDV16FF272JO3](#) [CDV16FF272JO3F](#) [CDV16FF301JO3](#)
[CDV16FF301JO3F](#) [CDV16FF302JO3F](#) [CDV16FF331JO3F](#) [CDV16FF361JO3](#) [CDV16FF361JO3F](#) [CDV16FF391JO3](#)
[CDV16FF391JO3F](#) [CDV16FF421JO3](#) [CDV16FF421JO3F](#) [CDV16FF431JO3F](#) [CDV16FF471JO3F](#)
[CDV16FF501JO3F](#) [CDV16FF511JO3F](#) [CDV16FF561JO3](#) [CDV16FF561JO3F](#) [CDV16FF621JO3F](#)
[CDV16FF681JO3F](#) [CDV16FF751JO3F](#) [CDV16FF821JO3F](#) [CDV16FF911JO3](#) [CDV16FF911JO3F](#) [CD16FD821JO3F](#)
[CD16FD241JO3F](#) [CD16FD272JO3F](#) [CD16FD122JO3F](#) [CD16FD222JO3F](#) [CD16FD242JO3F](#) [CD16FD391JO3F](#)
[CD16FD121JO3F](#) [CD16FD221JO3F](#)