

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/μs 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/μs. 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 470 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.

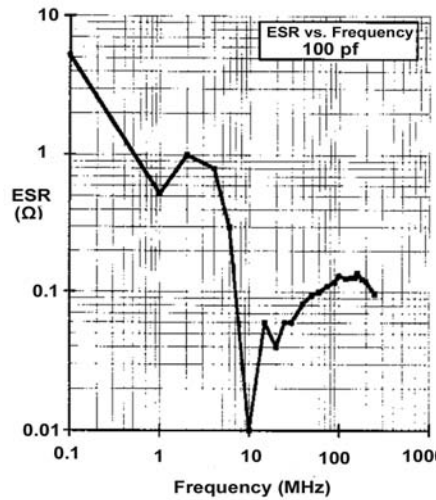
Highlights

- 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/μs
- 1,500 amps peak current capability

Specifications

- Capacitance Range:** 100 pF to 7,500 pF
- Capacitance Tolerance:** ±5% (J) standard; ±1% (F) and ±2% (G) available
- Voltage:** 500 Vdc & 1,000 Vdc
- Temperature Range:** -55 °C to +150 °C

Typical Performance Curves



RoHS-5 Compliant

Has more than 1000 ppm lead in some homogeneous material but otherwise complies with the EU Directive 2002/95/EC requirement restricting the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr(VI)), PolyBrominated Biphenyls (PBB) and PolyBrominated Diphenyl Ethers (PBDE).

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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 | CD16FD101J03 | .43 (10.9) | .46 (11.7) | 0.15 (3.8) | 20 | 0.019 | 0.047 | 0.09 | 0.19 | 0.47 | 0.78 |
| 120 | CD16FD121J03 | .43 (10.9) | .46 (11.7) | 0.15 (3.8) | 24 | 0.023 | 0.057 | 0.11 | 0.23 | 0.57 | 0.86 |
| 150 | CD16FD151J03 | .43 (10.9) | .46 (11.7) | 0.15 (3.8) | 30 | 0.028 | 0.071 | 0.14 | 0.28 | 0.71 | 0.96 |
| 180 | CD16FD181J03 | .43 (10.9) | .46 (11.7) | 0.15 (3.8) | 36 | 0.034 | 0.085 | 0.17 | 0.34 | 0.85 | 1.1 |
| 220 | CD16FD221J03 | .43 (10.9) | .46 (11.7) | 0.15 (3.8) | 44 | 0.041 | 0.10 | 0.21 | 0.41 | 1.0 | 1.2 |
| 270 | CD16FD271J03 | .45 (11.4) | .47 (11.9) | 0.16 (4.1) | 54 | 0.051 | 0.13 | 0.25 | 0.51 | 1.3 | 1.3 |
| 330 | CD16FD331J03 | .45 (11.4) | .47 (11.9) | 0.16 (4.1) | 66 | 0.062 | 0.16 | 0.31 | 0.62 | 1.5 | 1.5 |
| 390 | CD16FD391J03 | .45 (11.4) | .47 (11.9) | 0.16 (4.1) | 78 | 0.074 | 0.18 | 0.37 | 0.74 | 1.6 | 1.6 |
| 470 | CD16FD471J03 | .45 (11.4) | .47 (11.9) | 0.16 (4.1) | 94 | 0.089 | 0.22 | 0.44 | 0.89 | 1.8 | 1.8 |
| 560 | CD16FD561J03 | .46 (11.7) | .50 (12.7) | 0.18 (4.6) | 110 | 0.11 | 0.26 | 0.53 | 1.1 | 2.0 | 2.0 |
| 680 | CD16FD681J03 | .46 (11.7) | .50 (12.7) | 0.18 (4.6) | 160 | 0.15 | 0.39 | 0.77 | 1.5 | 2.5 | 2.5 |
| 820 | CD16FD821J03 | .46 (11.7) | .50 (12.7) | 0.18 (4.6) | 160 | 0.15 | 0.39 | 0.77 | 1.5 | 2.5 | 2.5 |
| 1000 | CD16FD102J03 | .46 (11.7) | .50 (12.7) | 0.18 (4.6) | 200 | 0.19 | 0.47 | 0.94 | 1.9 | 2.7 | 2.7 |
| 1200 | CD16FD122J03 | .46 (11.7) | .50 (12.7) | 0.18 (4.6) | 240 | 0.23 | 0.57 | 1.1 | 2.3 | 3.0 | 3.0 |
| 1500 | CD16FD152J03 | .46 (11.7) | .50 (12.7) | 0.18 (4.6) | 300 | 0.28 | 0.71 | 1.4 | 2.7 | 3.3 | 3.3 |
| 1800* | CD16FD182J03 | .47 (11.9) | .52 (13.2) | 0.25 (6.4) | 360 | 0.34 | 0.85 | 1.7 | 3.4 | 4.1 | 4.1 |
| 2200 | CD16FD222J03 | .47 (11.9) | .52 (13.2) | 0.25 (6.4) | 440 | 0.41 | 1.0 | 2.1 | 4.1 | 4.5 | 4.5 |
| 2700 | CD16FD272J03 | .47 (11.9) | .52 (13.2) | 0.25 (6.4) | 540 | 0.51 | 1.3 | 2.5 | 5.0 | 5.0 | 5.0 |
| 3000 | CD16FD302J03 | .47 (11.9) | .52 (13.2) | 0.25 (6.4) | 600 | 0.57 | 1.4 | 2.8 | 5.2 | 5.2 | 5.2 |
| 3300 | CD16FD332J03 | .48 (12.2) | .53 (13.7) | 0.28 (7.1) | 600 | 0.57 | 1.4 | 2.8 | 5.7 | 6.8 | 6.8 |
| 3600 | CD16FD362J03 | .48 (12.2) | .53 (13.7) | 0.28 (7.1) | 720 | 0.68 | 1.7 | 3.4 | 6.8 | 7.1 | 7.1 |
| 3900 | CD16FD392J03 | .48 (12.2) | .54 (13.7) | 0.28 (7.1) | 780 | 0.74 | 1.8 | 3.7 | 7.4 | 7.4 | 7.4 |
| 4300 | CD16FD432J03 | .48 (12.2) | .54 (13.7) | 0.28 (7.1) | 860 | 0.81 | 2.0 | 4.0 | 7.0 | 7.8 | 7.8 |
| 4700 | CD16FD472J03 | .49 (12.5) | .56 (14.2) | 0.31 (7.9) | 940 | 0.89 | 2.2 | 4.4 | 8.5 | 8.5 | 8.5 |
| 5600 | CD16FD562J03 | .49 (12.5) | .56 (14.2) | 0.33 (8.4) | 1100 | 1.1 | 2.6 | 5.3 | 9.0 | 9.0 | 9.0 |
| 6800 | CD16FD682J03 | .50 (12.7) | .57 (14.7) | 0.38 (9.7) | 1300 | 1.3 | 3.2 | 6.4 | 9.0 | 9.0 | 9.0 |
| 7500 | CD16FD752J03 | .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 | CDV16FF101J03 | .43 (10.9) | .46 (11.7) | .15 (3.8) | 23 | 0.022 | 0.055 | 0.11 | 0.22 | 0.55 | 0.92 |
| 120 | CDV16FF121J03 | .43 (10.9) | .46 (11.7) | .15 (3.8) | 27 | 0.026 | 0.066 | 0.13 | 0.26 | 0.66 | 1 |
| 130 | CDV16FF131J03 | .43 (10.9) | .46 (11.7) | .15 (3.8) | 29 | 0.029 | 0.071 | 0.14 | 0.29 | 0.71 | 1.1 |
| 150 | CDV16FF151J03 | .43 (10.9) | .46 (11.7) | .15 (3.8) | 34 | 0.033 | 0.082 | 0.16 | 0.33 | 0.82 | 1.1 |
| 180 | CDV16FF181J03 | .43 (10.9) | .46 (11.7) | .15 (3.8) | 41 | 0.04 | 0.10 | 0.2 | 0.4 | 1.0 | 1.2 |
| 200 | CDV16FF201J03 | .43 (10.9) | .46 (11.7) | .15 (3.8) | 45 | 0.044 | 0.11 | 0.22 | 0.44 | 1.1 | 1.3 |
| 220 | CDV16FF221J03 | .43 (10.9) | .46 (11.7) | .15 (3.8) | 50 | 0.048 | 0.12 | 0.24 | 0.48 | 1.2 | 1.4 |
| 240 | CDV16FF241J03 | .43 (10.9) | .46 (11.7) | .15 (3.8) | 54 | 0.053 | 0.13 | 0.26 | 0.53 | 1.3 | 1.4 |
| 270 | CDV16FF271J03 | .45 (11.4) | .47 (11.9) | .16 (4.1) | 61 | 0.059 | 0.15 | 0.3 | 0.59 | 1.5 | 1.6 |
| 300 | CDV16FF301J03 | .45 (11.4) | .47 (11.9) | .16 (4.1) | 68 | 0.066 | 0.16 | 0.33 | 0.7 | 1.6 | 1.7 |
| 330 | CDV16FF331J03 | .45 (11.4) | .47 (11.9) | .16 (4.1) | 74 | 0.073 | 0.18 | 0.36 | 0.73 | 1.8 | 1.8 |
| 360 | CDV16FF361J03 | .45 (11.4) | .47 (11.9) | .16 (4.1) | 81 | 0.079 | 0.2 | 0.4 | 0.79 | 1.8 | 1.8 |
| 390 | CDV16FF391J03 | .45 (11.4) | .47 (11.9) | .16 (4.1) | 88 | 0.086 | 0.21 | 0.43 | 0.86 | 1.9 | 1.9 |
| 420 | CDV16FF421J03 | .45 (11.4) | .47 (11.9) | .16 (4.1) | 95 | 0.092 | 0.23 | 0.46 | 0.92 | 2 | 2.0 |
| 430 | CDV16FF431J03 | .45 (11.4) | .47 (11.9) | .16 (4.1) | 97 | 0.095 | 0.24 | 0.47 | 0.95 | 2.0 | 2.0 |
| 470 | CDV16FF471J03 | .45 (11.4) | .47 (11.9) | .16 (4.1) | 106 | 0.1 | 0.26 | 0.52 | 1 | 2.1 | 2.1 |
| 500 | CDV16FF501J03 | .45 (11.4) | .47 (11.9) | .16 (4.1) | 113 | 0.11 | 0.27 | 0.55 | 1.1 | 2.2 | 2.2 |
| 510 | CDV16FF511J03 | .45 (11.4) | .47 (11.9) | .16 (4.1) | 115 | 0.11 | 0.28 | 0.56 | 1.1 | 2.2 | 2.2 |
| 560 | CDV16FF561J03 | .46 (11.7) | .50 (12.7) | .17 (4.4) | 126 | 0.12 | 0.31 | 0.62 | 1.2 | 2.4 | 2.4 |
| 620 | CDV16FF621J03 | .46 (11.7) | .50 (12.7) | .17 (4.4) | 140 | 0.14 | 0.34 | 0.68 | 1.4 | 2.5 | 2.5 |
| 680 | CDV16FF681J03 | .46 (11.7) | .50 (12.7) | .17 (4.4) | 153 | 0.15 | 0.37 | 0.75 | 1.5 | 2.7 | 2.7 |
| 750 | CDV16FF751J03 | .46 (11.7) | .50 (12.7) | .17 (4.4) | 169 | 0.16 | 0.41 | 0.82 | 1.6 | 2.8 | 2.8 |
| 820 | CDV16FF821J03 | .46 (11.7) | .50 (12.7) | .17 (4.4) | 185 | 0.18 | 0.45 | 0.9 | 1.8 | 2.9 | 2.9 |
| 910 | CDV16FF911J03 | .46 (11.7) | .50 (12.7) | .17 (4.4) | 205 | 0.2 | 0.5 | 1 | 2 | 3.1 | 3.1 |
| 1000 | CDV16FF102J03 | .46 (11.7) | .50 (12.7) | .17 (4.4) | 225 | 0.22 | 0.55 | 1.1 | 2.2 | 3.2 | 3.2 |
| 1200 | CDV16FF122J03 | .46 (11.7) | .50 (12.7) | .17 (4.4) | 270 | 0.26 | 0.66 | 1.3 | 2.6 | 3.5 | 3.5 |
| 1300 | CDV16FF132J03 | .46 (11.7) | .50 (12.7) | .17 (4.4) | 293 | 0.29 | 0.71 | 1.4 | 2.9 | 3.7 | 3.7 |
| 1500 | CDV16FF152J03 | .46 (11.7) | .50 (12.7) | .18 (4.6) | 338 | 0.33 | 0.82 | 1.6 | 3.3 | 3.9 | 3.9 |
| 1800* | CDV16FF182J03 | .47 (11.9) | .52 (13.2) | .25 (6.4) | 495 | 0.4 | 0.99 | 2 | 4 | 4.8 | 4.8 |
| 2000 | CDV16FF202J03 | .47 (11.9) | .52 (13.2) | .25 (6.4) | 605 | 0.48 | 1.2 | 2.4 | 4.8 | 5.3 | 5.3 |
| 2200 | CDV16FF222J03 | .47 (11.9) | .52 (13.2) | .25 (6.4) | 605 | 0.48 | 1.2 | 2.4 | 4.8 | 5.3 | 5.3 |
| 2400 | CDV16FF242J03 | .47 (11.9) | .52 (13.2) | .25 (6.4) | 660 | 0.53 | 1.3 | 2.6 | 5.3 | 5.5 | 5.5 |
| 2700 | CDV16FF272J03 | .47 (11.9) | .52 (13.2) | .25 (6.4) | 743 | 0.59 | 1.5 | 3 | 5.8 | 5.8 | 5.8 |
| 3000 | CDV16FF302J03 | .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.

Данный компонент на территории Российской Федерации

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