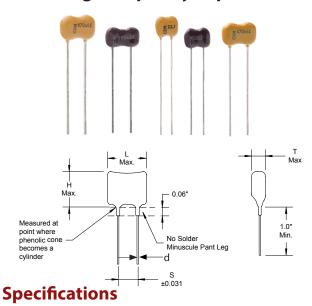
Type CD4 High-Frequency, Mica Capacitors

Ultra-HighFrequency Capacitor for CATV and RF Applications 0.1" Lead Spacing



Nearly the textbook ideal capacitor for highFrequency applications, Type CD4 is rock stable over its full temperature and voltage range. Higher self-resonant frequency and lower equivalent series inductance makes CD4 even better than CD17 and CD18 for highFrequency applications. 0.1" lead spacing means CD4 can replace ceramic capacitors on printed circuit boards.

Highlights

- Higher self-resonant frequency and lower equivalent series inductance than CD17 and CD18
- Low impedance to beyond 1 GHz
- Replaces other 0.1" lead-spacing capacitors
- Cool operation—Typical Qs > 2000
- Shockproof and delamination free
- Near zero capacitance change with frequency
- and temperature
- 100,000 V/µs dV/dt capability minimum
- Zero capacitance change with voltage

Click here to see ordering infomation

Capacitance Range	1 pF to 1,500 pF				
Capacitance Tolerance	±½ pF (D), ±1 pF (C),±1/2% (E)±1% (F),±1% (F),±2% (G), ±5% (J)				
Rated Voltage	100 Vdc & 500 Vdc				
Operating Temperature Range	−55 °C to +125 °C				
RoHS Compliant					

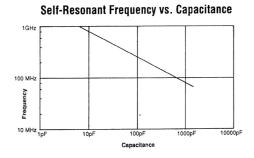
Ratings

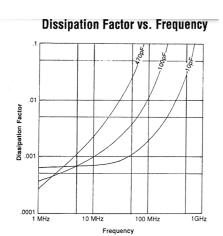
(pE)	Catalog Part Number	L In (mm)	H In (mm)	T In (mm)	S In (mm)	d In (mm)	(ag)	Catalog Part Number	L In (mm)	H In (mm)	T In (mm)	S In (mm)	d In (mm)
(pF)	Part Number	In (mm)	100 Vdc	111 (111111)	111 (111111)	In (mm)	(I' /	CD4ED390J03F		. ,	. ,	. ,	.020 (.5)
910	CD4FA911J03F		.310 (7.9)	160 (4 1)	.100 (2.5)	.020 (.5)	1	CD4ED430J03F	, ,	, ,	, ,	, ,	.020 (.5)
1000	CD4FA102J03F	.340 (8.6)	.310 (7.9)	.160 (4.1)	` '	.020 (.5)	1	CD4ED470J03F	` '	, ,	` '	, ,	.020 (.5)
1100	CD4FA112J03F	.340 (8.6)	.310 (7.9)	.160 (4.1)	` '	.020 (.5)	1	CD4ED500J03F	` '	, ,	` '	, ,	.020 (.5)
1200	CD4FA122J03F	` ,	.310 (7.9)	.170 (4.1)	, ,	.020 (.5)	1	CD4ED510J03F	, ,	` ,	, ,	, ,	.020 (.5)
1500	CD4FA152J03F	.340 (8.6)	` '	.170 (4.5)		.020 (.5)		CD4ED560J03F	. ,	, ,	. ,	, ,	.020 (.5)
1300	CD41 A 1323031		300 Vdc	. 100 (4.0)	.100 (2.3)	.020 (.3)	1	CD4ED620J03F	, ,	, ,	, ,	, ,	.020 (.5)
560	CD4FC561J03F		.310 (7.9)	160 (4.1)	.100 (2.5)	.020 (.5)	1	CD4ED680J03F	` '	, ,	` '	, ,	.020 (.5)
620	CD4FC621J03F	` '	` '	.160 (4.1)	` '	.020 (.5)	1	CD4ED750J03F	, ,	` ,	, ,	, ,	.020 (.5)
680	CD4FC681J03F	.340 (8.6)	.310 (7.9)	.160 (4.1)	` ,	.020 (.5)	1	CD4ED820J03F	, ,	, ,	, ,	, ,	.020 (.5)
750	CD4FC751J03F	` '	.310 (7.9)	.160 (4.1)	` '	.020 (.5)		CD4FD910J03F		. ,		,	.020 (.5)
820	CD4FC821J03F	` '	.310 (7.9)	.160 (4.1)	, ,	.020 (.5)	1	CD4FD101J03F	, ,	, ,	, ,	, ,	.020 (.5)
020	OD41 O02 10001	. ,	500 Vdc	.100 (4.1)	.100 (2.0)	.020 (.0)	1	CD4FD111J03F	, ,	, ,	, ,	, ,	.020 (.5)
1	CD4CD010D03F	.290 (7.4)		110 (2.8)	.100 (2.5)	020 (5)	1	CD4FD121J03F					.020 (.5)
2	CD4CD020D03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	, ,	.020 (.5)	1	CD4FD131J03F	, ,	, ,	, ,	, ,	.020 (.5)
		.290 (7.4)	.220 (5.6)	` ,	.100 (2.5)	.020 (.5)		CD4FD151J03F					.020 (.5)
4	CD4CD040D03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	` ,	.020 (.5)	1	CD4FD161J03F					.020 (.5)
5	CD4CD050D03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	, ,	.020 (.5)	!	CD4FD181J03F	, ,	, ,	, ,	, ,	.020 (.5)
6	CD4CD060D03F	.290 (7.4)	.220 (5.6)		.100 (2.5)	.020 (.5)	1	CD4FD201J03F					.020 (.5)
7	CD4CD070D03F	.290 (7.4)	.220 (5.6)	, ,	.100 (2.5)	.020 (.5)	1	CD4FD221J03F	, ,	, ,	, ,	, ,	.020 (.5)
8	CD4CD080D03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	` '	.020 (.5)	-	CD4FD241J03F		. ,		. ,	.020 (.5)
10	CD4CD100J03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	` ,	.020 (.5)	1	CD4FD251J03F	, ,	, ,	, ,	, ,	.020 (.5)
12	CD4CD120J03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	` ,	.020 (.5)	1	CD4FD271J03F	, ,	, ,	, ,	, ,	.020 (.5)
15	CD4CD150J03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	.100 (2.5)	.020 (.5)	1	CD4FD301J03F	, ,	` ,	, ,	, ,	.020 (.5)
18	CD4CD180J03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	.100 (2.5)	.020 (.5)	330	CD4FD331J03F	.340 (8.6)	.310 (7.9)	.160 (4.1)	.100 (2.5)	.020 (.5)
20	CD4ED200J03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	.100 (2.5)	.020 (.5)	360	CD4FD361J03F	.340 (8.6)	.310 (7.9)	.160 (4.1)	.100 (2.5)	.020 (.5)
22	CD4ED220J03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	.100 (2.5)	.020 (.5)	390	CD4FD391J03F	.340 (8.6)	.310 (7.9)	.160 (4.1)	.100 (2.5)	.020 (.5)
24	CD4ED240J03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	.100 (2.5)	.020 (.5)	430	CD4FD431J03F	.340 (8.6)	.310 (7.9)	.160 (4.1)	.100 (2.5)	.020 (.5)
27	CD4ED270J03F	.290 (7.4)	.220 (5.6)	.110 (2.8)		.020 (.5)	ı	CD4FD471J03					.020 (.5)
30	CD4ED300J03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	.100 (2.5)	.020 (.5)	500	CD4FD501J03	.340 (8.6)	.310 (7.9)	.160 (4.1)	.100 (2.5)	.020 (.5)
33	CD4ED330J03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	.100 (2.5)	.020 (.5)	510	CD4FD511J03	.340 (8.6)	.310 (7.9)	.160 (4.1)	.100 (2.5)	.020 (.5)
36	CD4ED360J03F	.290 (7.4)	.220 (5.6)	.110 (2.8)	.100 (2.5)	.020 (.5)			· · · · · ·				

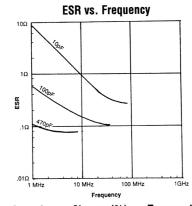
CDE Cornell Dubilier•1605 E. Rodney French Blvd.•New Bedford, MA 02744•Ph: (508)996-8561•Fax: (508)996-3830• www.cde.com

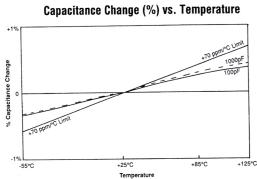
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Typical Performance Curves





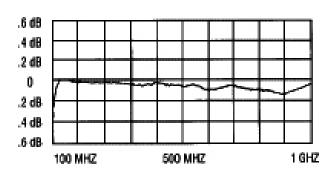


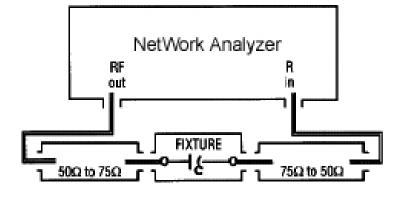


Insertion Loss

Over the frequency range of 100 MHz to 1 GHz the insertion loss in a balanced 50 Ω or 75 Ω system is flat ±0.2 dB. A typical test setup is below.

Insertion Loss vs. Frequency for CD17FC621JO3, 75 Ω System





Choosing CD4, CD16, CDV16, CD18 or CDV18

While insertion loss is flat within ±.2dB through 1 GHz, you may be able to avoid the small notch by changing the capacitor type to fit your capacitance. See table at right.

TYPE	Flat to Above 1 GHz
CD17	470 pF max
CD4	620 pF max
CD16	870 pF
CDV16	870 pF
CD18	660 pF max
CDV18	1000 pF max

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