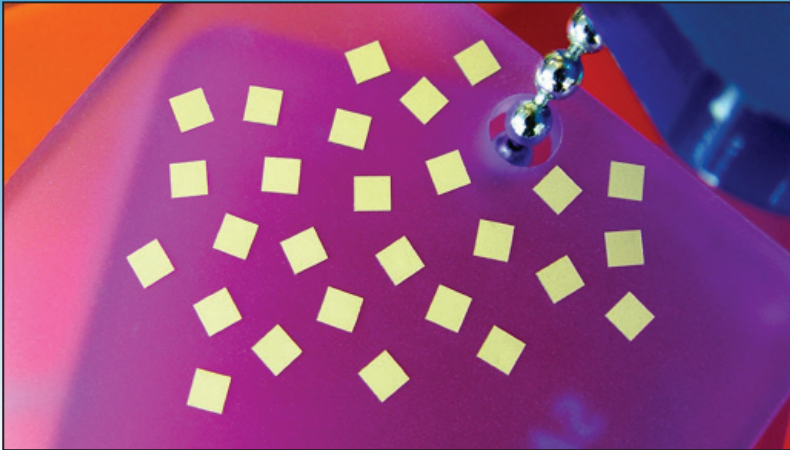


## Single Layer Capacitor



### Description

High Performance Single Layer Capacitors for RF, Microwave and Millimeter Wave Applications.

- Available from 0.03pF to 10,000pF
- Operating frequency up to 100GHz
- Wire Bondable  
100µ" Au with a Ni Barrier Layer
- Customized solutions available

### Applications

- DC Blocking
- RF Bypassing
- Filtering
- Tuning
- Coupling

### Benefits

- ESD Proof
- Gold metallization for wire bonding
- Rugged construction

### Test Level Codes

Commercial Level	
Y	1% AQL 2-Side Visual
X	100% 4-Side Visual 1% AQL Electrical (CAP/DF/IR & DWV)

High Reliability	
A	<b>MIL-PRF-49464 Group A</b>
	<ul style="list-style-type: none"> <li>● 100% Thermal Shock</li> <li>● 100% Voltage Conditioning</li> <li>● 100% Electrical (CAP/DF/IR &amp; DWV)</li> <li>● 100% 6-Side Visual</li> <li>● Bond Strength</li> <li>● Die Shear</li> <li>● Temperature Coefficient</li> </ul>
	<b>B</b>
B	<b>MIL-PRF-49464 Group B</b>
	<ul style="list-style-type: none"> <li>● MIL-PRF-49464 Group A</li> <li>● Immersion</li> <li>● Low Voltage Humidity</li> <li>● Life</li> </ul>
	<b>D</b>
	<ul style="list-style-type: none"> <li>● Customer Defined</li> </ul>
	<b>E</b>
	<ul style="list-style-type: none"> <li>● 6-Side Visual</li> </ul>

Tolerance	
Code	Description
P	± 0.01pF
A	± 0.05pF
B	± 0.1pF
C	± 0.25pF
D	± 0.50pF
G	± 2%
J	± 5%
K	± 10%
L	± 15%
M	± 20%
X	GMV (Guarantee Minimum Value)
Z	+80%, -20%

Voltage	
Code	Voltage
2	25 Volts
5	50 Volts
1	100 Volts

### Part Number Identification

D	10	CF	OR1	B	5	P	X	
<b>Product</b> D = Di-Cap®	<b>Case Size</b> 10 12 15 20 25 30 35 50 70 90	<b>Material</b> See material tables.	<b>Capacitance (pF)</b> R02 = 0.02pF OR5 = 0.5pF 1R0 = 1.0pF 5R1 = 5.1pF 100 = 10pF 101 = 100pF 432 = 4300pF  Refer to Capacitance range tables for available values. Consult an inside sales rep. for custom solutions.	<b>Tolerance</b> A = ± 0.05pF B = ± 0.10pF C = ± 0.25pF D = ± 0.5pF F = ± 1% G = ± 2% J = ± 5% K = ± 10% L = ± 15% M = ± 20% Z = +80% -20%	<b>Voltage</b> 2 = 25V 5 = 50V 1 = 100V	<b>Termination</b> P = Ni / Au T = Ni / AuSn M = Au L = Single Beam Lead A = Axial Beam Lead S = Standing Axial Beam Lead	<b>Test Level</b> Y, X, A, B, D and E.  See test level definitions.	<b>Packaging</b> T = Tape and Reel  Leave blank for generic waffle pack.

\*For custom designs contact applications engineering.



DLI•JohansonMFG•Novacap•Syfer•Voltronics

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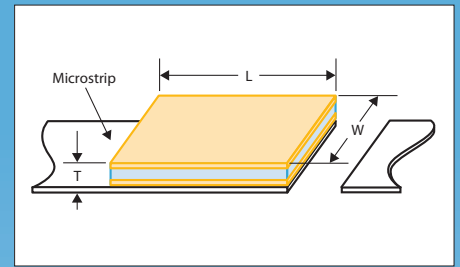
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Dimensions

Style	Length	Width	Thickness	
			50 Volt	100 Volt
D10	0.010" Max. (0.254mm Max.)	0.010" +0/-0.003" (0.254mm +0/-0.076mm)	0.004" ±0.001" (0.102mm ±0.025mm)	-
D12	0.015" Max. (0.381mm Max.)	0.012" +0.002"/-0.003" (0.305mm +0.051mm/-0.076mm)	0.004" ±0.001" (0.102mm ±0.025mm)	-
D15	0.020" Max. (0.508mm Max.)	0.015" +0/-0.003" (0.381mm +0/-0.076mm)	0.004" ±0.001" (0.102mm ±0.025mm)	0.006" ±0.001" (0.152mm ±0.025mm)
D20	0.020" Max. (0.508mm Max.)	0.020" +0/-0.003" (0.508mm +0/-0.076mm)	0.004" ±0.001" (0.102mm ±0.025mm)	0.006" ±0.001" (0.152mm ±0.025mm)
D25	0.030" Max. (0.762mm Max.)	0.025" +0/-0.003" (0.635mm +0/-0.076mm)	0.004" ±0.001" (0.102mm ±0.025mm)	0.006" ±0.001" (0.152mm ±0.025mm)
D30	0.030" Max. (0.762mm Max.)	0.030" +0/-0.003" (0.762mm +0/-0.076mm)	0.004" ±0.001" (0.102mm ±0.025mm)	0.006" ±0.001" (0.152mm ±0.025mm)
D35	0.040" Max. (1.016mm Max.)	0.035" ±0.005" (0.889mm ±0.127mm)	0.004" ±0.001" (0.102mm ±0.025mm)	0.007" ±0.002" (0.178mm ±0.051mm)
D50	0.060" Max. (1.524mm Max.)	0.050" ±0.010" (1.270mm ±0.254mm)	-	0.007" ±0.002" (0.178mm ±0.051mm)
D70	0.080" Max. (1.778mm Max.)	0.070" ±0.010" (1.778mm ±0.254mm)	-	0.007" ±0.002" (0.178mm ±0.051mm)
D90	0.100" Max. (2.54mm Max.)	0.090" ±0.010" (2.286mm ±0.254mm)	-	0.007" ±0.002" (0.178mm ±0.051mm)



\*UX material available in 25V (0.006" Thick) and 50V (0.010" Thick)

Capacitance values - 50 Volt Rated Di-Cap®

Style	D10			D12			D15			D20			D25			D30			D35		
	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.
PI	0.03	0.05	P	0.04	0.1	P	0.06	0.15	P	0.09	0.2	P,A	0.2	0.4	A,B	0.25	0.45	A,B	0.35	0.85	A,B
PG	0.04	0.06	P	0.06	0.1	P	0.08	0.2	P,A	0.15	0.25	P,A	0.25	0.5	A,B	0.3	0.6	A,B	0.5	1.1	A,B
AH	0.06	0.1	P	0.08	0.2	P,A	0.15	0.3	P,A	0.2	0.4	A,B	0.35	0.8	A,B	0.45	0.95	A,B	0.7	1.8	A,B,C
CF	0.07	0.1	P	0.1	0.25	P,A	0.15	0.35	P,A	0.2	0.5	P,A,B	0.45	0.95	A,B	0.55	1.1	A,B	0.85	2	A,B,C
NA	0.06	0.1	P	0.09	0.2	P,A	0.15	0.3	P,A	0.2	0.45	A,B	0.4	0.9	A,B	0.5	1	A,B	0.8	1.9	B,C
CD	0.1	0.15	P	0.15	0.35	P,A	0.25	0.55	A,B	0.35	0.75	A,B	0.65	1.5	A,B,C	0.85	1.8	B,C	1.3	3.3	B,C
CG	0.2	0.35	P,A	0.3	0.75	A,B	0.45	1.1	A,B	0.65	1.4	A,B,C	1.2	2.7	B,C	1.6	3.3	B,C	2.7	6.2	C,D
NP	0.25	0.4	A	0.35	0.9	A,B	0.5	1.3	A,B,C	0.75	1.8	B,C	1.5	3.3	C,D	1.9	3.9	C,D	3	7.5	C,D
NR	0.45	0.8	A,B	0.65	1.7	B,C	1	2.4	B,C	1.5	3.3	C,D	2.7	6.2	C,D,K	3.6	7.5	D	5.6	13	D,J,K
NS	0.8	1.5	B,C	1.2	3	B,C	1.8	4.7	C,D	2.7	6.2	C,D	5.1	12	J,K	6.8	13	K	11	27	K
NU	1.6	3	B,C	2.4	6.2	C,D	3.6	9.1	D,K	5.6	12	D,K	11	24	K	15	27	K	22	51	K
NV	2.4	4.3	C,D	3.6	9.1	D,K	5.6	13	D,K	8.2	18	K	16	36	K	20	43	K	33	75	K

Capacitance values - 100 Volt Rated Di-Cap®

Style	D15			D20			D25			D30			D35			D50			D70			D90		
	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.
PI	0.04	0.1	P	0.06	0.1	P	0.15	0.25	P,A	0.15	0.3	P,A	0.2	0.55	A,B	0.5	1.3	A,B	0.95	2	B,C	1.2	3	B,C
PG	0.06	0.1	P	0.08	0.15	P	0.2	0.35	A	0.2	0.4	A,B	0.25	0.75	A,B	0.6	1.7	B,C	1.2	2.7	B,C	1.5	3.9	B,C
AH	0.08	0.2	P,A	0.15	0.25	P,A	0.25	0.5	A,B	0.35	0.65	A,B	0.4	1.2	A,B,C	0.95	2.7	B,C	1.9	3.9	B,C	2.4	6.2	C,D
CF	0.1	0.25	P,A	0.15	0.3	P,A	0.3	0.65	A,B	0.4	0.75	A,B	0.45	1.4	A,B,C	1.1	3	B,C	2.4	4.7	C,D	3	7.5	C,D
NA	0.09	0.2	P,A	0.15	0.3	P,A	0.3	0.6	A,B	0.35	0.7	A,B	0.45	1.3	A,B,C	1.1	3	B,C	2.2	4.3	C,D	2.7	6.8	C,D
CD	0.15	0.35	P,A	0.25	0.5	A,B	0.45	1	A,B	0.6	1.2	A,B,C	0.7	2.2	B,C	1.7	4.7	C,D	3.6	7.5	C,D	4.3	12	D,J,K
CG	0.3	0.7	A,B	0.45	0.95	A,B	0.85	1.9	A,B,C	1.1	2.2	B,C	1.3	3.9	B,C,D	3.3	9.1	C,D,K	6.8	13	D,K	8.2	22	J,K
DB	0.3	0.75	A,B	0.45	1	A,B	0.85	1.9	B,C	1.1	2.2	B,C	1.4	4.3	C,D	3.3	9.1	C,D,K	6.8	15	D,K	8.2	22	J,K
NP	0.35	0.85	A,B	0.55	1.2	B,C	1	2.2	B,C	1.3	2.7	B,C,D	1.6	5.1	C,D	3.9	11	C,D,K	8	16	J,K	10	27	J,K
NR	0.65	1.6	B,C	1	2.2	B,C	1.9	4.3	C,D	2.7	5.1	C,D	3	9.1	D,K	7.5	20	J,K	15	33	J,K	20	51	J,K
NS	1.2	3	C,D	1.9	3.9	C,D	3.6	8.2	D,K	4.7	9.1	D,K	5.6	18	K	15	39	K	30	62	K	36	91	K
NU	2.4	6.2	C,D	3.9	8.2	C,D,K	7.5	16	D,J,K	9.1	18	J,K	12	36	J,K	30	82	J,K	56	120	K	68	180	K
NV	3.6	9.1	D,K	5.6	12	D,K	11	24	K	15	27	K	18	51	K	43	120	K	91	180	K	110	270	K

UX Material Capacitance Table

Style	D10			D12			D15			D20			D25			D30			D35			D50			D70			D90		
	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.	MIN.	MAX.	TOL.			
25V	51	75	75	180	110	250	170	340	280	650	390	800	620	1400	1600	3200	3500	5900	6200	10000										
50V							100	200	170	390	240	470	360	850	940	2000	2100	3500	3700	5500										

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