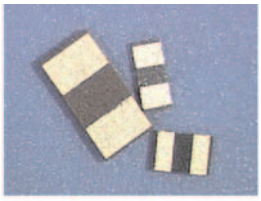
Functional Applications:

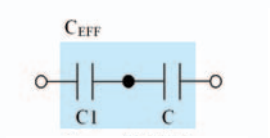
- DC Blocking
- RF Bypassing
- Elimination of wirebond

Benefits:

- Consistent performance
- Coplanar waveguide
- Gap Cap configuration eliminates wirebonding

Gap Caps are designed for DC Blocking and RF Bypassing. The low insertion loss and high resonant frequencies make it an ideal device for this type of application. This product's unique configuration eliminates the need for wirebonding, therefore reducing performance variations.

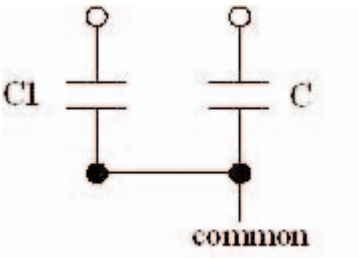


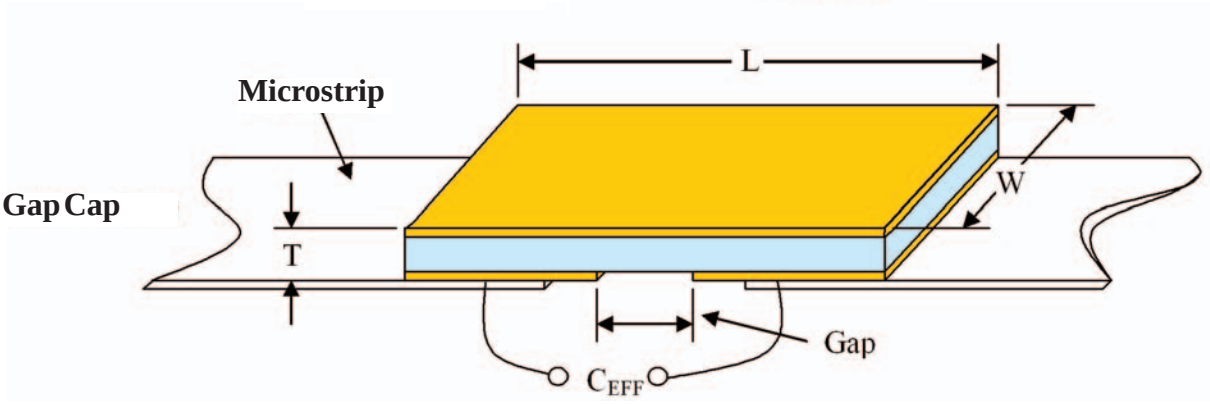


C_{EFF} = SERIES EQUIVALENT

C1 = C2 C_{EFF} = C1 / 2

All Gap Cap values are listed as C_{EFF}





25 Volt Gap Cap Dimensions

Style	Standard Capacitance Range	G Gap (Nom.)		W Width		L Length (Maximum)		T Thickness	
	pF	Inches	mm	Inches	mm	Inches	mm	Inches (±.001)	mm (± .025)
G10	.01 – 70	.005	.127	.010 + .000 - .003	.254 + .000 - .076	.030	.762	.004	.102
G15	.02 – 130	.008	.203	.015 + .000 - .003	.381 + .000 - .076	.040	1.016		
G20	.03 – 200	.010	.254	.020 + .000 - .003	.508 + .000 - .076	.050	1.270		
G25	.03 – 300	.020	.508	.025 + .000 - .003	.635 + .000 - .076	.060	1.524		
G30	.04 – 360			.030 + .000 - .003	.762 + .000 - .076				
G35	.04 – 400			.035 ± .005	.889 ± .127				

UX thickness only available in .005", .010" and .015"

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50 Volt Gap Cap Dimensions

Style	Standard Capacitance Range	G Gap (Nom.)		W Width		L Length (Maximum)		T Thickness	
	pF	Inches	mm	Inches	mm	Inches	mm	Inches (±.001)	mm (± .025)
G10	.01 – 36	.005	.127	.010 + .000 - .003	.254 + .000 - .076	.030	.762	.006	.152
G15	.02 – 68	.008	.203	.015 + .000 - .003	.381 + .000 - .076	.040	1.016		
G20	.02 – 110	.010	.254	.020 + .000 - .003	.508 + .000 - .076	.050	1.270		
G25	.03 – 200	.020	.508	.025 + .000 - .003	.635 + .000 - .076	.080	2.032		
G30	.03 – 240			.030 + .000 - .003	.762 + .000 - .076				
G35	.04 – 300			.035 ± .005	.889 ± .127				
G50	.04 – 510			.050 ± .010	1.270 ± .254				

Gap Cap Designer Kits

160 Capacitors, 10 Each of 16 Values

Part Number	Capacitor Width	10 Capacitors of each value								
		Dielectric	pF	Tol.	pF	Tol.	pF	Tol.	pF	Tol.
G10XXKITA5PX05	.010”	Class I, see codes on pg.5	.05 .1	A A	.2 .3	A A	.4 .5	A B	.6 .8	C C
		Class II, see codes on pg.5	1.0 1.5	C C	2.2 4.7	D M	5.6 8.2	M M	10 15	M M
G15XXKITA5PX08 G20XXKITA5PX10	.015” .020”	Class I, see codes on pg.5	.08 .2	A A	.4 .5	A B	.6 1.0	B C	1.5 2.2	D D
		Class II, see codes on pg.5	3.3 4.7	D M	5.6 6.8	M M	8.2 10	M M	15 20	M M
G25XXKITA5PX10	.025”	Class I, see codes on pg. 5	.4 .5	A B	.6 1.0	B C	1.5 2.2	C D	3.3 4.7	D D
		Class II, see codes on pg.5	5.6 6.8	M M	8.2 10	M M	15 20	M M	33 51	M M

DLI reserves the right to substitute values as required.

Part Number Identification

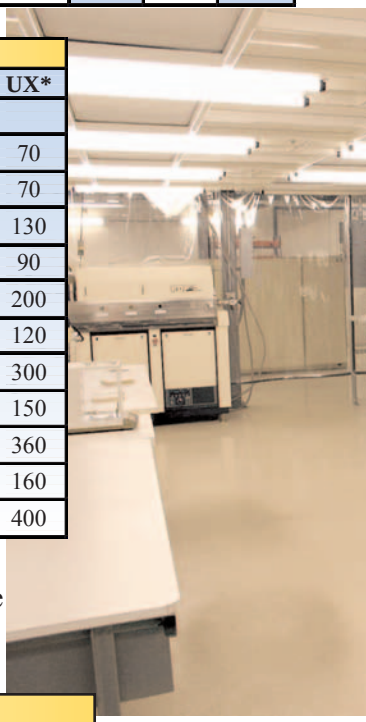
G	20	BU	100	K	5	P	X	10
Product G = Gap Capacitors	**Case Size** 10 15 20 25 30 35 50	**Material** See Material Tables on page 5 in the General Section.	**Capacitance(pF)** R01 = 0.01 pF 0R5 = 0.5 pF 1R0 = 1.0 pF 5R1 = 5.1 pF 100 = 10 pF 511 = 510 pF See Capacitance tables for available values. Consult Factory for custom solutions.	**Tolerance** 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%	**Voltage** C = 16V 2 = 25V 5 = 50V	**Termination** P = Ni / Au M = Au	**Test Level** Y, X, A, B,D and E. SeeTest Level Codes on page 7 in General Section	**Gap Width** In mils 5 8 10 20

25 Volt Gap Cap

Capacitance Range vs. Case Size by Dielectric Material

Style	Std. Gap+		Class I Materials													
			LA	PI	PG	AH	CF	NA	CD	NG	CG	DB	NP	NR	NS	NU	NV
G10	0.005"	Min	0.01	0.02	0.02	0.04	0.04	0.04	0.06	0.07	0.15	0.15	0.15	0.25	0.50	0.95	1.4
		Max	0.02	0.03	0.05	0.08	0.09	0.08	0.10	0.15	0.25	0.25	0.30	0.60	1.2	2.4	3.6
G15	0.008"	Min	0.02	0.03	0.04	0.06	0.08	0.07	0.15	0.15	0.25	0.25	0.30	0.50	0.90	1.8	2.7
		Max	0.04	0.07	0.10	0.15	0.15	0.15	0.25	0.30	0.50	0.55	0.65	1.2	2.2	4.3	6.8
G20	0.010"	Min	0.03	0.04	0.05	0.08	0.10	0.09	0.15	0.20	0.30	0.30	0.35	0.65	1.2	2.4	3.6
		Max	0.07	0.10	0.15	0.25	0.30	0.25	0.45	0.55	0.90	0.90	1.1	2.0	3.9	7.5	11
G25	0.020"	Min	0.03	0.05	0.07	0.10	0.15	0.15	0.20	0.20	0.35	0.35	0.40	0.75	1.4	3.0	4.3
		Max	0.09	0.15	0.20	0.30	0.35	0.35	0.60	0.65	1.1	1.1	1.3	2.4	4.7	9.1	13
G30	0.020"	Min	0.04	0.06	0.08	0.15	0.15	0.15	0.25	0.30	0.45	0.45	0.55	0.95	1.8	3.6	5.6
		Max	0.10	0.15	0.25	0.35	0.45	0.40	0.70	0.80	1.3	1.4	1.6	3.0	5.6	11	16
G35	0.020"	Min	0.04	0.07	0.09	0.15	0.20	0.15	0.30	0.30	0.50	0.50	0.60	1.1	2.2	4.3	6.2
		Max	0.10	0.20	0.25	0.45	0.50	0.50	0.80	0.95	1.6	1.6	1.9	3.6	6.8	13	20

Style	Std. Gap+		Class II Dielectric Materials										
			BF	BD	BG	BC	BE	BL	BJ	BN	BT	BU	BV	UX*
G10	0.005"	Min	0.70	1.1	1.4	2.0	2.0	3.3	5.1	7.5	7.5	15	22	
		Max	1.7	2.7	3.6	5.1	4.7	7.5	13	18	18	33	51	70
G15	0.008"	Min	1.4	2.2	2.7	3.9	3.9	6.2	10	15	15	27	43	70
		Max	3.3	5.1	6.8	10	9.1	15	24	33	33	62	100	130
G20	0.010"	Min	1.7	2.7	3.6	5.1	5.1	8.2	13	18	18	33	51	90
		Max	5.6	9.1	11	16	16	24	43	56	56	110	160	200
G25	0.020"	Min	2.2	3.3	4.3	6.2	6.2	10	16	22	22	43	68	120
		Max	6.8	11	13	20	20	30	51	68	68	130	200	300
G30	0.020"	Min	2.7	4.3	5.6	8.2	7.5	12	20	27	27	51	82	150
		Max	8.2	13	16	24	24	39	62	82	82	160	240	360
G35	0.020"	Min	3.3	5.1	6.2	9.1	9.1	15	24	33	33	62	100	160
		Max	10	16	20	27	27	43	75	100	100	180	300	400



* UX capacitors are 16 volt rated

+Normal gap widths are 0.005", 0.008", 0.010", and 0.020". Not all widths are available on all configurations. Please consult factory for further details.

Table of Standard Values

0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.1
0.15	0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.55
0.6	0.65	0.7	0.75	0.8	0.85	0.9	0.95	1
1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9
2	2.2	2.4	2.7	3	3.3	3.6	3.9	4.3
4.7	5.1	5.6	6.2	6.8	7.5	8.2	9.1	10
11	12	13	15	16	18	20	22	24
27	30	33	36	39	43	47	51	56
62	68	75	82	91	100	110	120	130
150	160	180	200	220	240	270	300	330
360	390	400						

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50 Volt Gap Cap

Capacitance Range vs. Case Size by Dielectric Material

Style	Std. Gap*		Class I Dielectric Materials														
			LA	PI	PG	AH	CF	NA	CD	NG	CG	DB	NP	NR	NS	NU	NV
G10	0.005”	Min	0.01	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.08	0.08	0.09	0.20	0.35	0.65	0.95
		Max	0.01	0.02	0.03	0.05	0.06	0.05	0.09	0.10	0.15	0.15	0.20	0.40	0.80	1.6	2.4
G15	0.008”	Min	0.02	0.03	0.03	0.05	0.06	0.05	0.08	0.10	0.15	0.20	0.20	0.35	0.65	1.3	2.0
		Max	0.02	0.05	0.06	0.10	0.10	0.10	0.15	0.20	0.35	0.35	0.40	0.80	1.5	3.0	4.7
G20	0.010”	Min	0.02	0.03	0.04	0.06	0.07	0.07	0.15	0.15	0.20	0.25	0.25	0.45	0.85	1.7	2.7
		Max	0.04	0.08	0.10	0.15	0.20	0.15	0.30	0.35	0.60	0.60	0.70	1.3	2.4	5.1	7.5
G25	0.020”	Min	0.03	0.04	0.05	0.08	0.09	0.08	0.15	0.20	0.30	0.30	0.35	0.60	1.1	2.2	3.3
		Max	0.09	0.15	0.20	0.30	0.35	0.35	0.55	0.65	1.1	1.1	1.3	2.4	4.7	9.1	13
G30	0.020”	Min	0.03	0.05	0.07	0.10	0.15	0.15	0.20	0.20	0.35	0.35	0.40	0.75	1.4	3.0	4.3
		Max	0.10	0.15	0.25	0.35	0.45	0.40	0.70	0.80	1.3	1.3	1.6	3.0	5.6	11	16
G35	0.020”	Min	0.04	0.06	0.07	0.15	0.15	0.15	0.20	0.25	0.40	0.40	0.50	0.90	1.6	3.3	5.1
		Max	0.10	0.20	0.25	0.45	0.5	0.45	0.80	0.95	1.5	1.6	1.9	3.6	6.2	13	20
G50	0.020”	Min	0.04	0.07	0.09	0.15	0.20	0.20	0.30	0.30	0.50	0.50	0.60	1.2	2.2	4.3	6.2
		Max	0.20	0.35	0.50	0.75	0.90	0.85	1.4	1.6	2.7	2.7	3.3	6.2	11	22	33

Style	Std. Gap*		Class II Dielectric Materials									
			BF	BD	BG	BC	BE	BL	BJ	BN	BT	BU	BV
G10	0.005”	Min	0.50	0.75	0.95	1.4	1.4	2.2	3.6	5.1	5.1	9.1	15
		Max	1.1	1.8	2.4	3.3	3.3	5.1	8.2	12	12	22	36
G15	0.008”	Min	0.95	1.5	2.0	3.0	2.7	4.3	7.5	10	10	20	30
		Max	2.2	3.6	4.7	6.8	6.2	10	16	22	22	43	68
G20	0.010”	Min	1.3	2.0	2.7	3.9	3.6	6.2	10	13	13	24	39
		Max	3.6	5.6	7.5	11	10	16	27	39	39	68	110
G25	0.020”	Min	1.7	2.7	3.3	4.7	4.7	7.5	12	18	18	33	51
		Max	6.8	11	13	20	20	30	51	68	68	130	200
G30	0.020”	Min	2.2	3.3	4.3	6.2	6.2	10	16	22	22	43	68
		Max	8.2	13	16	24	24	36	62	82	82	160	240
G35	0.020”	Min	2.4	3.9	5.1	7.5	6.8	11	18	24	24	47	75
		Max	10	15	20	27	27	43	68	100	100	180	300
G50	0.020”	Min	3.3	5.1	6.2	9.1	9.1	15	24	33	33	62	100
		Max	16	27	33	51	47	75	120	160	160	330	510

*Normal Gap widths are 0.005”, 0.008”, 0.010”, and 0.020”. Not all widths are available on all configurations. Please consult factory for further details.