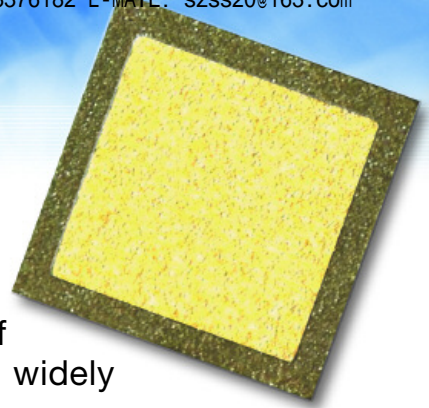


# CSM Series Margin Capacitors

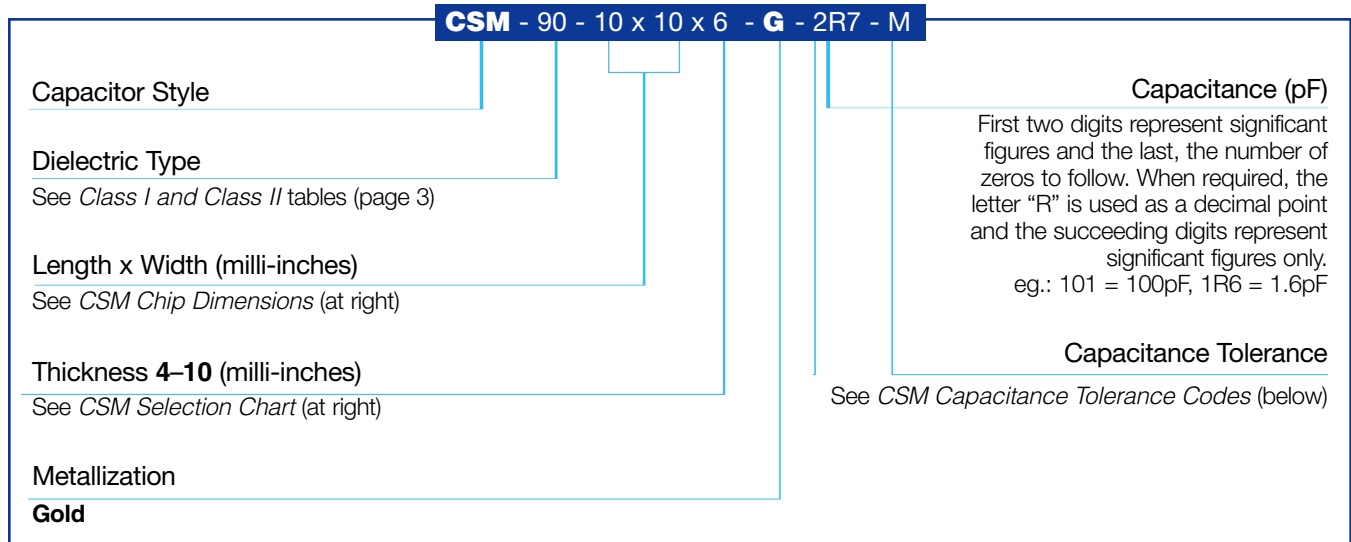
Margin caps have the topside electrode withdrawn from the edges in order to increase the distance between electrodes and dramatically decrease the possibilities of shorting when epoxy die-mounting. This style is also widely used for optical recognition-based assembly.



- MARGIN CAPACITORS CAN BE CUSTOMIZED TO ANY SIZED SQUARE OR RECTANGLE

## CSM Part Number Assembly

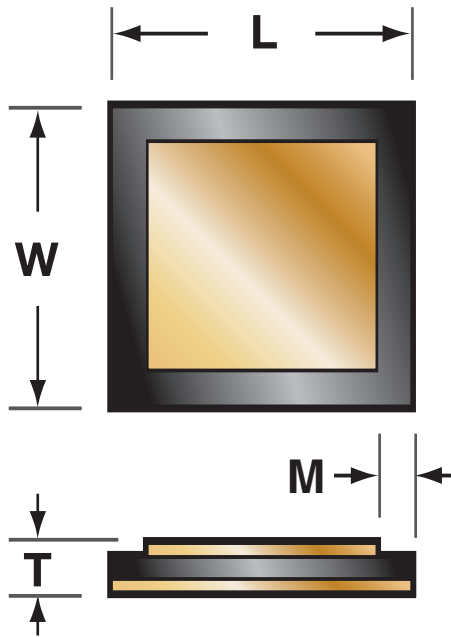
Example shown: COMPEX Series CSM dielectric type C-90, .010 x .010 x .006, gold, 2.7pF, ±20% tolerance.



## CSM Capacitance Tolerance Codes

Class I Dielectrics: C-20 thru C-75				Class II Dielectrics: C-80 thru C-200			
Tolerance	Code	Tolerance	Code	Tolerance	Code	Tolerance	Code
±.01pF	<b>P</b>	±20%	<b>M</b>	-20% thru +80%	<b>Z</b>	±20%	<b>M</b>
±.05pF	<b>A</b>	±15%	<b>L</b>	-10% thru +40%	<b>Y</b>	±15%	<b>L</b>
±.10pF	<b>B</b>	±10%	<b>K</b>	Guaranteed Min. Value	<b>GMV</b>	±10%	<b>K</b>
±.25pF	<b>C</b>	±5%	<b>J</b>			±5%	<b>J</b>
±.50pF	<b>D</b>	±2%	<b>G</b>				
		±1%	<b>F</b>				

### CSM Chip Dimensions



### CSM Electrode Configuration

Two electrodes



### CSM Cap Sizes

Cap Size	Length & Width	L&W Tolerance	Margin Nom.	Thickness
10	.010	±.001	.001	±.0015
15	.015	+.001 to -.015	.002	
20	.020	+.001 to -.002	.002	
25	.025	+.001 to -.002	.002	See CSM Selection Chart for thickness
30	.030	+.001 to -.003	.002	
40	.040	+.001 to -.004	.002	
50	.050	+.001 to -.005	.002	
All dimensions given are inches.				

### CSM Selection Chart

Cap. (pF)	Cap Size 10 x 10 Diel. Thick.	Cap Size 15 x 15 Diel. Thick.	Cap Size 20 x 20 Diel. Thick.	Cap Size 25 x 25 Diel. Thick.	Cap Size 30 x 30 Diel. Thick.	Cap Size 35 x 35 Diel. Thick.	Cap Size 40 x 40 Diel. Thick.	Cap Size 50 x 50 Diel. Thick.	
0.06	C-50 10	C-30 7	C-20 5	C-20 7	C-20 10				
0.08	C-50 9	C-30 5	C-30 10	C-20 6	C-20 8				
0.1	C-50 6	C-30 4	C-30 7	C-20 5	C-20 7	C-20 10			
0.2	C-50 4	C-50 7	C-50 10	C-30 6	C-30 10	C-20 5	C-20 7	C-20 10	
0.3	C-60 6	C-50 5	C-50 9	C-30 4	C-30 5	C-30 9	C-20 5	C-20 7	
0.4	C-60 4	C-50 4	C-50 5	C-50 10	C-30 4	C-30 6	C-30 9	C-20 5	
0.5	C-70 6	C-60 8	C-50 5	C-50 9	C-50 10	C-30 5	C-30 7	C-30 10	
0.6	C-70 5	C-60 7	C-50 4	C-50 7	C-50 10	C-30 4	C-30 6	C-30 9	
0.8	C-80 7	C-60 5	C-60 8	C-50 5	C-50 6	C-50 10	C-30 4	C-30 7	Class I Dielectrics
1	C-80 5	C-60 4	C-60 6	C-50 4	C-50 6	C-50 9	C-30 4	C-30 5	
1.2	C-80 5	C-70 5	C-60 5	C-60 9	C-50 4	C-50 8	C-50 10	C-30 4	
1.5	C-80 4	C-70 4	C-60 4	C-60 7	C-50 4	C-50 6	C-50 8	C-30 5	
1.8	C-90 10	C-80 7	C-70 6	C-60 6	C-50 4	C-50 5	C-50 7	C-50 10	
2	C-90 9	C-80 6	C-70 5	C-60 5	C-60 8	C-50 5	C-50 6	C-50 9	
2.2	C-90 8	C-80 5	C-70 5	C-60 5	C-60 7	C-50 4	C-50 6	C-50 8	
2.7	C-90 7	C-80 4	C-75 7	C-60 4	C-60 6	C-60 8	C-50 5	C-50 7	
3.3	C-90 6	C-80 4	C-80 6	C-70 5	C-60 4	C-60 7	C-50 4	C-50 6	
3.9	C-90 5	C-90 10	C-80 5	C-70 4	C-70 7	C-60 6	C-60 8	C-50 5	
4.7	C-90 4	C-90 8	C-80 5	C-80 8	C-70 5	C-60 5	C-60 7	C-60 10	
5.6	C-100 7	C-90 7	C-90 10	C-80 6	C-70 5	C-60 4	C-60 6	C-60 8	
6.8	C-100 6	C-90 6	C-90 9	C-80 5	C-80 7	C-70 6	C-60 5	C-60 7	
8.2	C-100 5	C-90 5	C-90 8	C-80 4	C-80 6	C-70 5	C-70 6	C-60 6	
10	C-100 4	C-90 4	C-90 6	C-80 4	C-80 5	C-70 4	C-70 5	C-60 5	
12	C-120 6	C-100 6	C-90 5	C-90 9	C-80 4	C-80 7	C-70 4	C-70 7	
15	C-120 5	C-100 5	C-90 4	C-90 7	C-90 10	C-80 5	C-80 7	C-70 5	
18	C-130 6	C-100 4	C-100 7	C-90 6	C-90 9	C-80 4	C-80 6	C-80 8	
20	C-130 5	C-100 4	C-100 7	C-90 5	C-90 7	C-80 4	C-80 5	C-80 8	
22	C-130 4	C-100 4	C-100 6	C-90 5	C-90 7	C-90 10	C-80 5	C-80 7	
27	C-140 5	C-120 6	C-100 5	C-90 4	C-90 6	C-90 9	C-80 4	C-80 6	
33	C-140 5	C-120 5	C-100 4	C-100 7	C-90 5	C-90 7	C-90 9	C-80 5	
39	C-140 4	C-120 4	C-120 7	C-100 6	C-100 8	C-90 6	C-90 8	C-80 4	
47	C-140 4	C-130 5	C-120 5	C-100 5	C-100 7	C-90 5	C-90 7	C-90 10	
56	C-200 8	C-140 7	C-120 5	C-100 4	C-100 6	C-90 4	C-90 5	C-90 8	
68	C-200 8	C-140 6	C-120 4	C-120 7	C-100 5	C-100 7	C-90 4	C-90 7	
82	C-200 5	C-140 5	C-130 5	C-120 6	C-120 8	C-100 6	C-100 7	C-90 6	
100	C-200 5	C-140 4	C-140 7	C-120 5	C-120 7	C-100 5	C-100 6	C-90 5	
120		C-200 8	C-140 6	C-120 4	C-120 6	C-100 4	C-100 5	C-100 8	
150		C-200 8	C-140 5	C-130 4	C-120 5	C-120 7	C-100 4	C-100 7	
180		C-200 5	C-140 5	C-140 6	C-120 4	C-120 6	C-120 7	C-100 6	
200		C-200 5	C-140 4	C-140 6	C-120 8	C-120 5	C-120 7	C-100 5	
220		C-200 5	C-200 8	C-140 6	C-140 8	C-120 5	C-120 6	C-100 5	
270			C-200 8	C-140 4	C-140 6	C-120 4	C-120 5	C-120 8	
330			C-200 5	C-200 8	C-140 5	C-140 8	C-130 5	C-120 6	
390			C-200 5	C-200 8	C-140 4	C-140 7	C-140 8	C-120 5	
470				C-200 5	C-200 8	C-140 5	C-140 7	C-120 5	
560				C-200 5	C-200 8	C-140 4	C-140 6	C-130 5	
680				C-200 5	C-200 5	C-140 4	C-140 5	C-140 7	
820					C-200 5	C-200 8	C-140 4	C-140 6	
1000					C-200 5	C-200 8	C-200 8	C-140 5	
1200						C-200 5	C-200 8	C-140 4	
1500							C-200 5	C-200 8	
1800								C-200 8	
2200								C-200 5	
2700								C-200 5	

Class I Dielectrics

Class II Dielectrics

