



THIN FILM MNOS CAPACITOR SERIES

California Micro Devices' CC Series thin film top and bottom contact capacitors provide an extremely stable and precise component for a variety of hybrid microelectronic applications. CC capacitors are available in a broad range of values and tolerances. The silicon nitride/silicon dioxide dielectric features high Q and a low positive TCC over a wide temperature range. Each format has a defined bonding area.

ELECTRICAL SPECIFICATIONS	
Parameter	Test Condition
Operating Temperature Range	-55°C to +125°
D.C. Working Voltage @ 25°C	As specified in C/V table
Peak Voltage @ 25°C	1.5 X Working Voltage
Dissipation Factor @ 1kHz, 1V, 25°C	0.1% max
Q @ 1 Mhz, 50 mV, 25°C	1000 min
Temperature Coefficient of Capacitance (TCC), -55° +150°C	±50ppm/°C

MECHANICAL SPECIFICATIONS	
Substrate	Silicon 10±2 mils thick
Backing	Gold
Metalization	Aluminum 10,000Å thick, min

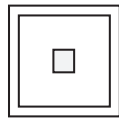
PACKAGING
Two inch square trays of 400 chips maximum.

Formats

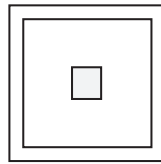
BONDING PADS — 5 mils²



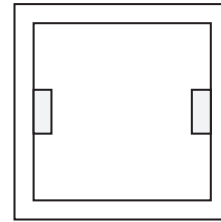
FORMAT A
20 x 20 mils



FORMAT B
30 x 30 mils



FORMAT C
40 x 40 mils



FORMAT D
55 x 55 mils

CAPACITANCE AND VOLTAGE RATING							
Picofarads	Volts	Picofarads	Volts	Picofarads	Volts	Picofarads	Volts
20 x 20-mils FORMAT A				40 X 40-MILS FORMATS C			
4.7	200	18	70	120	70	270	30
5.6	200	22	50	150	60	330	30
6.8	150	27	50	180	50	390	30
10	100	33	40	220	40		
12	100	39	30				
15	80	47	30				
30 x 30-mils FORMAT B				55 x 55-MILS FORMATS D			
51	80	68	70	470	40	820	25
56	80	75	60	560	30	1000	25
62	70	82	50	680	30		
		100	50				

PART NUMBER DESIGNATION			
CC	510	0	J
Series	Significant figures of capacitance. R indicates decimal point.	Number of Zeroes added to significant figures	Tolerance J = ±5% ≥ 50pF K = ±10% ≥ 50pF M + ±20% ≥ 50PF