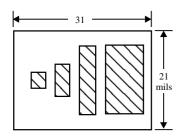
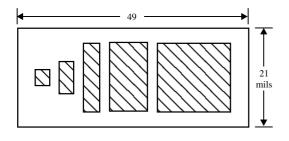


## **Programmable Capacitor Chips**

California Micro Devices' PCC Series thin film programmable capacitor chip shares the same characteristics of CAMD's CC Series thin film capacitors. Series PCC contains up to 5 capacitors with typical values of up to 1, 2, 4, 8 and 16pF capacitance. Binary ratios starting at 0.25 pF are also available. A common back metallization layer forms one plate of the capacitor; individual contacts form the other plate; silicon dioxide dielectric features high Q and low positive, TCC over a wide temperature range. Series PCC is typically used in circuits involving active filters, such as - Chebyshev or Butterworth filter (multiple feedback design) for high pass, low pass, or band pass applications.

| Electrical Specifications              |                           |  |  |  |
|--|---------------------------|--|--|--|
| Operating Temperature Range            | -55°C to 125°C            |  |  |  |
| 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, 50MV, 25°C                  | 1000min.                  |  |  |  |
| Temperature Coefficient of Capacitance | ±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 is standard. |  |  |  |  |

| Notes                                  |  |  |
|--|--|--|
| 1. For less than 2pF tolerance is ±25% |  |  |

| Capacitance and Voltage Rating |                        |       |  |  |  |
|--------------------------------|------------------------|-------|--|--|--|
|                                | Picofarads             | Volts |  |  |  |
| PCC04                          | 0.25 — 0.5 — 1 — 2     | 100V  |  |  |  |
|                                | 0.5 — 1 — 2 — 4        | 50V   |  |  |  |
|                                | 1 — 2 — 4 — 8          | 20V   |  |  |  |
| PCC05                          | 0.25 - 0.5 - 1 - 2 - 4 | 100V  |  |  |  |
|                                | 0.5 — 1 — 2 — 4 — 8    | 50V   |  |  |  |
|                                | 1 — 2 — 4 — 8 — 16     | 20V   |  |  |  |

| Part Number Designation |  |  |  |                           |  |  |
|-------------------------|--|--|--|---------------------------|--|--|
| PCC                     | 510  | -X   | 0  | J                         |  |  |
| Series                  | Significant figures of capacitance. R indicates decimal point. | -04 Capacitors/Chip<br>-05 Capacitors/Chip | Significant figures of capacitance value will be two figures (16pF max.) | Tolerance<br>M = ±20%≥2pF |  |  |