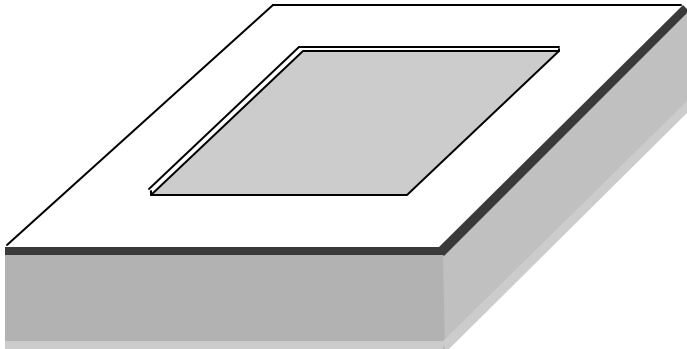


## MIS Chip Caps

### Description:

Calmos MIS Chip Capacitors are optimized for Military and High Rel microwave integrated circuits as DC blocks, bypass capacitors, and as tuning elements in matching networks, filters, and phase shifters. Stabilized silicon nitride/oxide dielectric layers provide low dielectric loss and high standoff voltage properties. Four micron thick gold pads ensure a strong wire bonding surface. The capacitor dielectric in the street around the pad is covered by a thick deposited oxide to provide improved impact resistance. Calmos chip capacitors use platinum/gold backside metallization which is suitable for either high temp or epoxy die attach.

### CHIP OUTLINE



Thickness 3.5 mil or 5 mil

## Technical Data MIS Chip Capacitors

### Features:

- High Reliability Silicon Oxide-Nitride Dielectric
- TiW/Pt/ 4 micron Gold Bond Pads & Ti/Pt/Gold Backside suitable for epoxy or 400C eutectic die attach
- Low Loss and High Q
- Tight +/- 3% Tolerance available
- Capacitance range 10-300pF

### Applications:

- DC Blocks
- Microwave Integrated Circuits
- Filters
- Phase Shifters

### Packaging Options

- Chip, Vial Pack, Wafer Form, Waffle Pack & Tape and Reel

## CAPACITANCE VALUES 100 V Rating

Calmos Part Number	Capacitance (pF)	Voltage Rating (Volts)	Chip Size (mils)	Top Contact (mils)
CM10PT10V1F	10	100	10 X 10	6.0
CM22PT10V1F	22	100	15 X 15	11.0
CM33PT10V1F	33	100	20 X 20	14.0
CM47PT10V1F	47	100	20 X 20	17.0
CM80PT10V1F	80	100	30 X 30	18.0
CM100PT10V1F	100	100	30 X 30	20.0
CM200PT10V1F	200	100	40 X 40	28.0
CM250PT10V1F	250	100	40 X 40	32.0
CM300PT10V1F	300	100	50 X 50	35.0

## CAPACITANCE VALUES 50 V Rating

Calmos Part Number	Capacitance (pF)	Voltage Rating (Volts)	Chip Size (mils)	Top Contact (mils)
CM20PT10V05T	20	50	10 X 10	6.0
CM40PT10V05T	40	50	15 X 15	11.0
CM90PT10V05T	90	50	20 X 20	16.0
CM100PT10V05T	100	50	20 X 20	17.0
CM160PT10V05T	160	50	30 X 30	18.0
CM200PT10V05T	200	50	30 X 30	20.0

CM 20P is 20 pF

T10 is 10 % Tolerance use T5 for 5% T3 3%

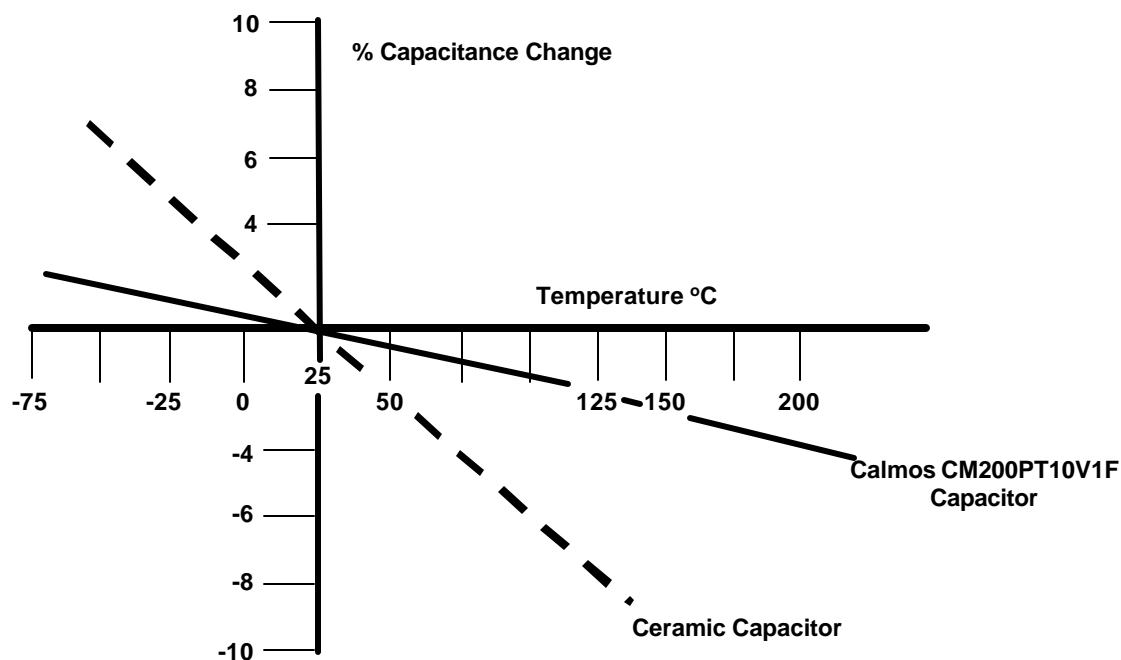
V1 is 100V rating V05 is 50V rating

F is 5 mils thick T is 3.5 mils thick

## Absolute Maximum Ratings

Applied Voltage	Specified Standoff Voltage
Operating Temperature	-55°C to 200°C
Storage Temperature	-55°C to 200°C

## Typical Capacitance $\Delta$ for CMIS and Ceramic Capacitor vs. Temperature (200pF Capacitor)



[www.calmotech.com](http://www.calmotech.com)

Data subject to change

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