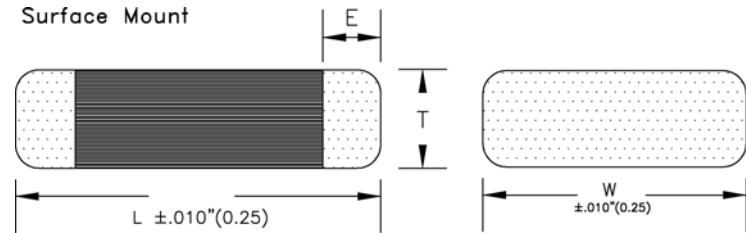


## FEATURES

- Designed for RF communication applications.
- Ultra Low ESR.
- T/C IS NPO (COG).
- CMCS capacitors are available in four sizes:  
25 Volts = 0402 size  
50 Volts = 0402 AND 0603 size  
100 Volts = 0603, 0805, & 1210 sizes  
200 Volts = 0603, 0805, & 1210 sizes.
- Temperature Coefficient  
0ppm  $\pm$  30 ppm/ $^{\circ}$ C (-55 $^{\circ}$ C ~ +125 $^{\circ}$ C) NPO.
- Insulation Resistance:  
1000000M $\Omega$  minimum @ 25 $^{\circ}$ C, rated voltage.  
100000M $\Omega$  minimum @ 125 $^{\circ}$ C, rated voltage.



## PART NUMBERING

| Part Number Example: CMCS-100/161KN0805TF  |   |                  |   |                        |                |                       |           |                 |                |
|--|---|------------------|---|------------------------|----------------|-----------------------|-----------|-----------------|----------------|
| CMCS   | - | 100              | / | 161                    | K              | N                     | 0805      | T               | F              |
| Type   |   | Rated DC Voltage |   | Capacitance Code (pF)* | Tolerance Code | Dielectric Material** | Case Size | Package Code*** | RoHs Compliant |
| * Capacitance Code: First two digits represent significant figures, third digit represents multiplier (number of zeros). |   |                  |   |                        |                |                       |           |                 |                |
| ** Dielectric Material: N = NPO.   |   |                  |   |                        |                |                       |           |                 |                |
| *** Package Code: T = 7" Tape & Reel, T13 = 13" Tape & Reel, W = Waffle.   |   |                  |   |                        |                |                       |           |                 |                |

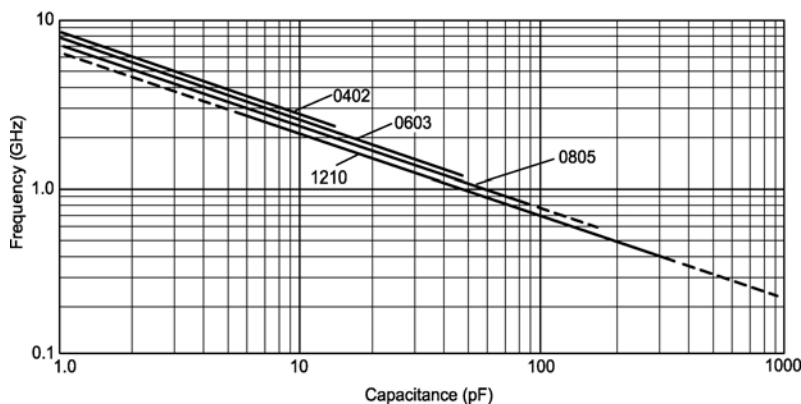
## DIMENSIONS (INCHES (mm))

| EIA         | 0402                         | 0603                          | 0805                           | 1210                           |
|-------------|------------------------------|-------------------------------|--------------------------------|--------------------------------|
| Length Max. | 0.039(1.0)                   | 0.06(1.52)                    | 0.079(2.01)                    | 0.126(3.20)                    |
| Width Max.  | 0.020(0.50)                  | 0.03(0.76)                    | 0.0490(1.25)                   | 0.098(2.49)                    |
| Max. T      | 0.024(0.60)                  | 0.035(0.90)                   | 0.050(1.25)                    | 0.05(1.27)                     |
| Term. Band  | 0.01(0.25) $\pm$ 0.005(0.13) | 0.010(0.25) $\pm$ 0.005(0.13) | 0.020(0.508) $\pm$ 0.010(0.25) | 0.025(0.635) $\pm$ 0.015(0.25) |

## RATINGS

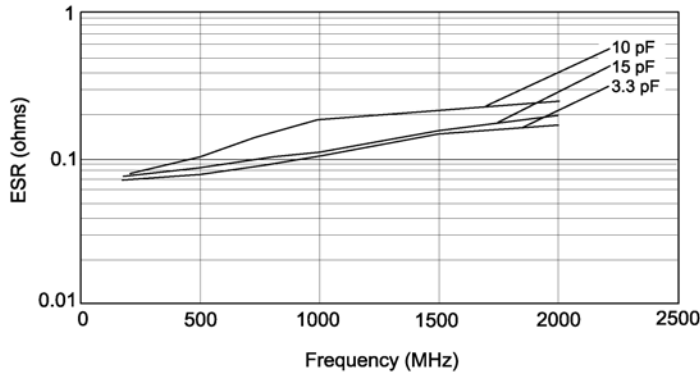
| Size | WVDC         |               |                |               |
|------|--------------|---------------|----------------|---------------|
|      | 25           | 50            | 100            | 200           |
| 0402 | 0.2pF ~ 30pF | 0.2pF ~ 30pF  |                |               |
| 0603 |              | 110pF ~ 120pF | 20pF ~ 100pF   | 1pF ~ 18pF    |
| 0805 |              |               | 140pF ~ 160pF  | 1.0pF ~ 130pF |
| 1210 |              |               | 470pF ~ 1000pF | 1.0pF ~ 430pF |

TYPICAL SERIES RESONANT FREQUENCY

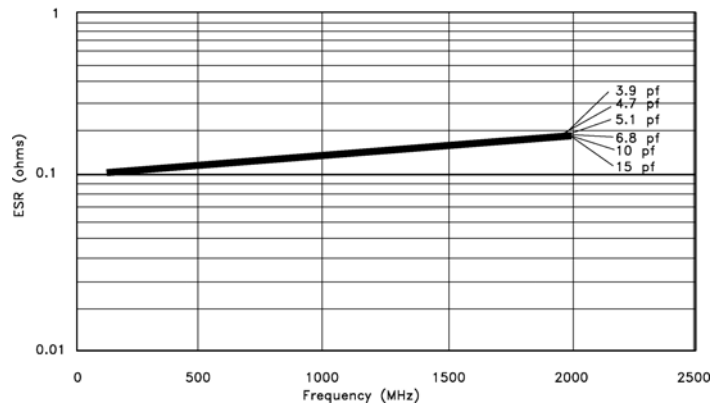


| Code | Cap. Tolerance |
|------|----------------|
| B    | $\pm$ 0.1pF    |
| C    | $\pm$ 0.25pF   |
| D    | $\pm$ 0.5pF    |
| F    | $\pm$ 1%       |
| G    | $\pm$ 2%       |
| J    | $\pm$ 5%       |
| K    | $\pm$ 10%      |
| M    | $\pm$ 20%      |

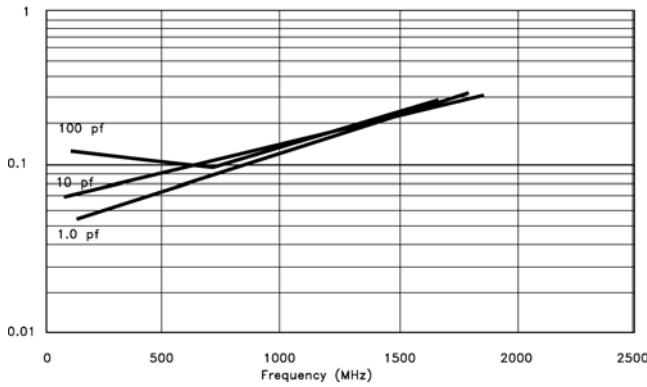
TYPICAL ESR vs. FREQUENCY  
0402



TYPICAL ESR vs FREQUENCY (0603)



TYPICAL ESR vs FREQUENCY (0805)



TYPICAL ESR vs FREQUENCY (1210)

