

# MULTILAYER (MONOLYTHIC) CERAMIC

## CML SERIES

The CML Series is a range of radial lead conformally coated non-polarized multilayer ceramic capacitors. These flame retardant capacitors are most commonly used for filtering, coupling, and bypass applications.

### RATINGS

**Capacitance Range:** 10pf to 2.2 $\mu$ f  
**Voltage:** 50VDC and 100VDC

### PERFORMANCE SPECIFICATIONS

**Operating Temperature Range:**

Z5U +10°C to +85°C  
 X7R -55°C to +125°C  
 NPO/COG -55°C to +125°C

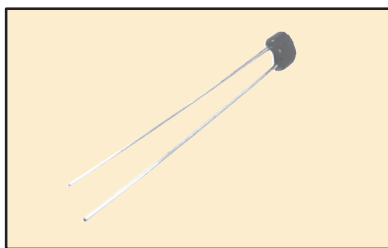
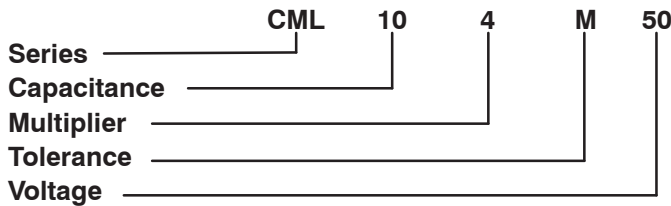
**Tolerance Range:**

CML103M50 – CML225M50  $\pm$ 20%  
 CML102K100 – CML154K100  $\pm$ 10%  
 CML100J100 – CML473J100  $\pm$ 5%

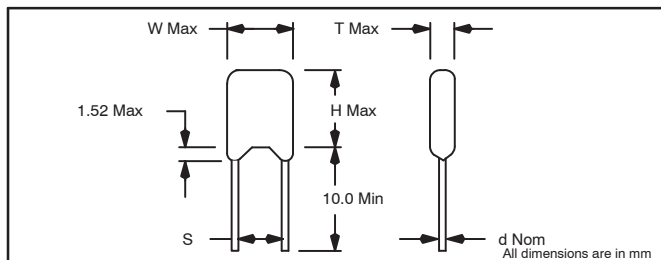
**Temperature Coefficient:**

CML103M50 – CML225M50 Z5U (+22%, -56%)  
 CML102K100 – CML154K100 X7R ( $\pm$ 15%)  
 CML100J100 – CML473J100 NPO/COG (Stable)

### ORDERING INFORMATION



**FIGURE 1**



### MECHANICAL SPECIFICATIONS (Figure 1)

#### 50 Volt (Z5U) Series Dimensions (mm)

Cap $\mu$ f	T	H	W	S	d
.01	3.175	5.08	5.08	2.54	.508
.015	3.175	5.08	5.08	2.54	.508
.022	3.175	5.08	5.08	2.54	.508
.033	3.175	5.08	5.08	2.54	.508
.047	3.175	5.08	5.08	2.54	.508
.068	3.175	5.08	5.08	2.54	.508
.10	3.175	5.08	5.08	2.54	.508
.15	3.175	5.08	5.08	2.54	.508
.22	3.175	5.08	5.08	2.54	.508
.33	3.175	5.08	5.08	2.54	.508
.47	3.175	5.08	5.08	2.54	.508
.68	3.810	7.62	7.62	5.08	.508
1.0	3.810	7.62	7.62	5.08	.508
1.5	3.810	7.62	7.62	5.08	.508
2.2	3.810	7.62	7.62	5.08	.508

#### 100 Volt (X7R) Series Dimensions (mm)

Cap $\mu$ f	T	H	W	S	d
.0010	3.175	5.08	5.08	2.54	.508
.0015	3.175	5.08	5.08	2.54	.508
.0022	3.175	5.08	5.08	2.54	.508
.0033	3.175	5.08	5.08	2.54	.508
.0047	3.175	5.08	5.08	2.54	.508
.0068	3.175	5.08	5.08	2.54	.508
.010	3.175	5.08	5.08	2.54	.508
.015	3.175	5.08	5.08	2.54	.508
.022	3.175	5.08	5.08	2.54	.508
.033	3.175	5.08	5.08	2.54	.508
.047	3.175	5.08	5.08	2.54	.508
.068	3.175	5.08	5.08	2.54	.508
.10	3.175	5.08	5.08	2.54	.508
.15	3.810	7.62	7.62	5.08	.508
.22	3.810	7.62	7.62	5.08	.508
.33	3.810	7.62	7.62	5.08	.508
.47	3.810	7.62	7.62	5.08	.508
.68	3.810	7.62	7.62	5.08	.508
1.0	3.810	7.62	7.62	5.08	.508

#### 100 Volt (NPO/COG) Series Dimensions (mm)

Cap pf	T	H	W	S	d
10.0	3.175	5.08	5.08	2.54	.508
15.0	3.175	5.08	5.08	2.54	.508
22.0	3.175	5.08	5.08	2.54	.508
33.0	3.175	5.08	5.08	2.54	.508
47.0	3.175	5.08	5.08	2.54	.508
68.0	3.175	5.08	5.08	2.54	.508
100.0	3.175	5.08	5.08	2.54	.508
150.0	3.175	5.08	5.08	2.54	.508
220.0	3.175	5.08	5.08	2.54	.508
330.0	3.175	5.08	5.08	2.54	.508
470.0	3.175	5.08	5.08	2.54	.508
680.0	3.175	5.08	5.08	2.54	.508
1000.0	3.175	5.08	5.08	2.54	.508
1500.0	3.175	5.08	5.08	2.54	.508
2200.0	3.175	5.08	5.08	2.54	.508
3300.0	3.175	5.08	5.08	2.54	.508
4700.0	3.175	5.08	5.08	2.54	.508
6800.0	3.810	7.62	7.62	5.08	.508
10000.0	3.810	7.62	7.62	5.08	.508
15000.0	3.810	7.62	7.62	5.08	.508
22000.0	3.810	7.62	7.62	5.08	.508
33000.0	3.810	7.62	7.62	5.08	.508
47000.0	3.810	7.62	7.62	5.08	.508