

Type: **PMD** - Radial leaded, epoxy coated, metallized polypropylene capacitor

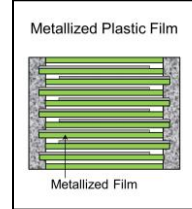


**Typical Applications:**

- High frequency pulse
- Noise suppression
- Filtering

**Attributes:**

- Low dissipation factor (DF)
- High reliability
- Self-Healing
- High insulation resistance (IR)
- High dv/dt
- Flame Retardant Coating



**Specifications**

Construction: Polypropylene dielectric.  
Wound, extended metallized film construction.  
Electrode: Metallized film.

Enclosure: UL 94 V-0 flame retardant epoxy dipped coating.

Lead Wire: Copper-clad steel core wire electroplated with 100% Tin.

Capacitance: 0.010 to 4.7  $\mu$ F  $\pm$ 5% (J),  $\pm$ 10% (K) &  $\pm$ 20% (M)

Rated Voltage: 250, 400 and 630 VDC

DF:  $\leq$  0.1 % @ 20°C  $\pm$ 3°C, 1KHz

I.R.: C < 0.33 $\mu$ F, R  $\geq$  30,000 MegOhms @ 20 $\pm$ 3°C  
C  $\geq$  0.33 $\mu$ F, RC  $\geq$  10,000 MegOhms x  $\mu$ Fs

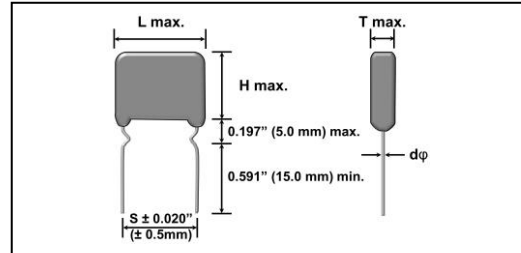
Dielectric Strength: 1.6 x rated VDC for 2 seconds max.

Temp Range: -40°C to 105°C, derate voltage 1.5% / °C above 85°C

T.C.: -220  $\pm$ 110 ppm / °C, -40°C to +85°C

Marking: Type, Logo, capacitance code, tolerance code and working voltage.

Packaging: Bulk, Ammo or Reel packed.



Dimensions in Inches (mm)				
L	0.512 (13.0)	0.709 (18.0)	1.024 (26.0)	1.221 (31.0)
S	0.394 (10.0)	0.591 (15.0)	0.886 (22.5)	1.083 (27.5)
dφ	0.024 (0.6)	0.032 (0.8)	0.032 (0.8)	0.032 (0.8)

VDC	Maximum Pulse Rise Time (dv/dt) V/ $\mu$ Sec			
	S Dimension in Inches (mm)			
	0.394 (10.0)	0.591 (15.0)	0.886 (22.5)	1.083 (27.5)
250	11.0	7.0	4.0	3.0
400	20.0	10.0	5.5	5.0
630	30.0	15.0	8.0	7.0

**Accelerated Performance Testing**

DC Life: 1,000 Hours, 85°C, 1.25 x Rated VDC  
Limits:  $\Delta$  C/C  $\leq$  3%, DF  $\leq$  0.12%,  
IR  $\geq$  50% of initial limit

Moisture: 40°C / 95% RH / 240 hours  
Limits:  $\Delta$  C/C < 3%, DF  $\leq$  0.12%,  
IR  $\geq$  50% of initial limit

Vibration: IEC 60068-2-21

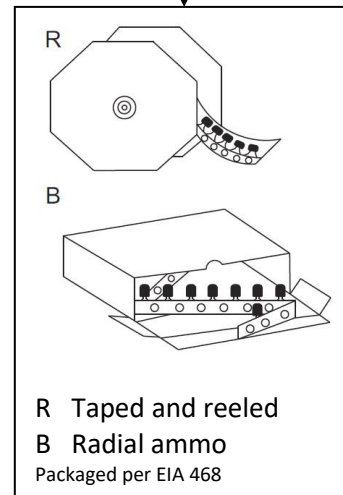
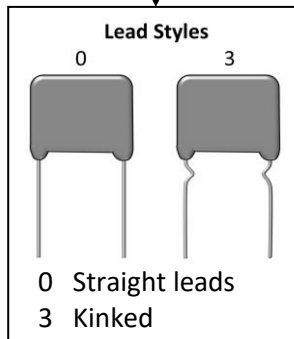
$\mu$ F	250 VDC				400 VDC				630 VDC			
	L	T	H	S	L	T	H	S	L	T	H	S
0.010	0.512 (13.0)	0.197 (05.0)	0.355 (09.0)	0.394 (10.0)	0.512 (13.0)	0.197 (05.0)	0.355 (09.0)	0.394 (10.0)	0.512 (13.0)	0.217 (05.5)	0.375 (09.5)	0.394 (10.0)
0.015	0.512 (13.0)	0.197 (05.0)	0.355 (09.0)	0.394 (10.0)	0.512 (13.0)	0.197 (05.0)	0.355 (09.0)	0.394 (10.0)	0.512 (13.0)	0.256 (06.5)	0.414 (10.5)	0.394 (10.0)
0.022	0.512 (13.0)	0.197 (05.0)	0.355 (09.0)	0.394 (10.0)	0.512 (13.0)	0.217 (05.5)	0.375 (09.5)	0.394 (10.0)	0.512 (13.0)	0.276 (07.0)	0.453 (11.5)	0.394 (10.0)
0.047	0.512 (13.0)	0.217 (05.5)	0.375 (09.5)	0.394 (10.0)	0.512 (13.0)	0.296 (07.5)	0.493 (12.5)	0.394 (10.0)	0.709 (18.0)	0.315 (08.0)	0.512 (13.0)	0.591 (15.0)
0.068	0.512 (13.0)	0.237 (06.0)	0.414 (10.5)	0.394 (10.0)	0.709 (18.0)	0.237 (06.0)	0.434 (11.0)	0.591 (15.0)	0.709 (18.0)	0.355 (09.0)	0.611 (15.5)	0.591 (15.0)
0.100	0.512 (13.0)	0.276 (07.0)	0.434 (11.0)	0.394 (10.0)	0.709 (18.0)	0.296 (07.5)	0.532 (13.5)	0.591 (15.0)	1.024 (26.0)	0.315 (08.0)	0.591 (15.0)	0.886 (22.5)
0.150	0.709 (18.0)	0.256 (06.5)	0.414 (10.5)	0.591 (15.0)	1.024 (26.0)	0.276 (07.0)	0.532 (13.5)	0.886 (22.5)	1.024 (26.0)	0.375 (09.5)	0.670 (17.0)	0.886 (22.5)
0.220	0.709 (18.0)	0.276 (07.0)	0.493 (12.5)	0.591 (15.0)	1.024 (26.0)	0.315 (08.0)	0.591 (15.0)	0.886 (22.5)	1.221 (31.0)	0.394 (10.0)	0.670 (17.0)	1.083 (27.5)
0.470	1.024 (26.0)	0.296 (07.5)	0.552 (14.0)	0.886 (22.5)	1.221 (31.0)	0.394 (10.0)	0.670 (17.0)	1.083 (27.5)	1.221 (31.0)	0.591 (15.0)	0.886 (22.5)	1.083 (27.5)
0.680	1.024 (26.0)	0.335 (08.5)	0.611 (15.5)	0.886 (22.5)	1.221 (31.0)	0.473 (12.0)	0.749 (19.0)	1.083 (27.5)	1.221 (31.0)	0.689 (17.5)	0.886 (22.5)	1.083 (27.5)
1.000	1.024 (26.0)	0.414 (10.5)	0.670 (17.0)	0.886 (22.5)	1.221 (31.0)	0.552 (14.0)	0.886 (22.5)	1.083 (27.5)				
1.500	1.221 (31.0)	0.434 (11.0)	0.709 (18.0)	1.083 (27.5)	1.221 (31.0)	0.670 (17.0)	0.886 (22.5)	1.083 (27.5)				
2.200	1.221 (31.0)	0.532 (13.5)	0.827 (21.0)	1.083 (27.5)								
2.700	1.221 (31.0)	0.591 (15.0)	0.886 (22.5)	1.083 (27.5)								
3.300	1.221 (31.0)	0.630 (16.0)	0.945 (24.0)	1.083 (27.5)								
4.700	1.221 (31.0)	0.749 (19.0)	1.103 (28.0)	1.083 (27.5)								

Dimensions in Inches, metric (mm) in parenthesis.

### How to Order

Example: 103K1K2PAD3R (0.01 $\mu$ F  $\pm$ 10% 1200vdc PAD Kinked & Reel packaging)

103	K	1K2	PMD	3R	XXX
Capacitance PF Code (2 significant digits + number of zeros)	Capacitance Tolerance	Voltage	Series Type	Lead Style and Packaging	Special Code
<b>Examples:</b> 102 = 0.001 $\mu$ F 103 = 0.010 $\mu$ F 104 = 0.100 $\mu$ F 224 = 0.220 $\mu$ F 225 = 2.200 $\mu$ F 106 = 10.00 $\mu$ F	J = $\pm$ 5% K = $\pm$ 10% M = $\pm$ 20%	100 = 100 VDC 250 = 250 VDC 400 = 400 VDC 630 = 630 VDC 1K0 = 1000 VDC 1K2 = 1200 VDC 1K6 = 1600 VDC 2K0 = 2000 VDC  275 = 275 VAC	PAD PMD POD P XK		



### Typical Polypropylene Temperature and Frequency Characteristics

