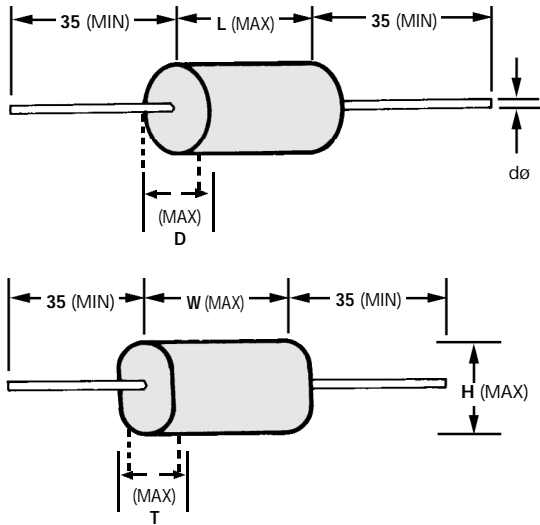
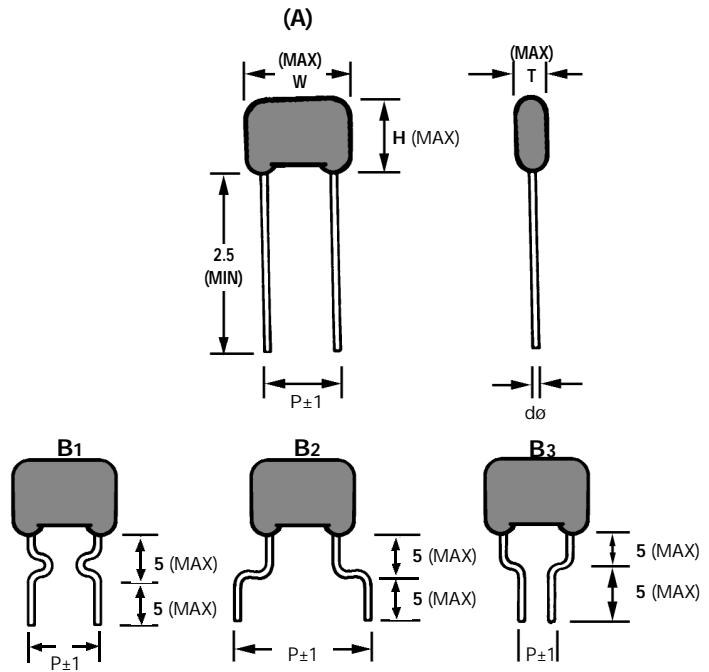


Mechanical Dimensions Unit: mm

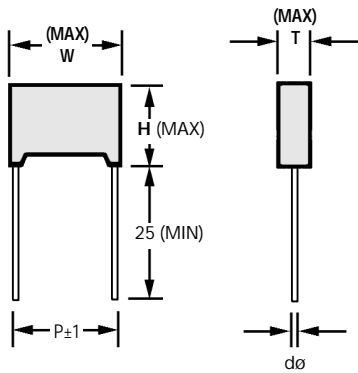
AXIAL (Non-Inductive)



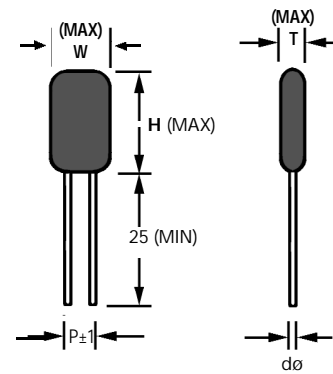
RADIAL (Non-Inductive)



BOX (Non-Inductive)



PEI (Inductive)

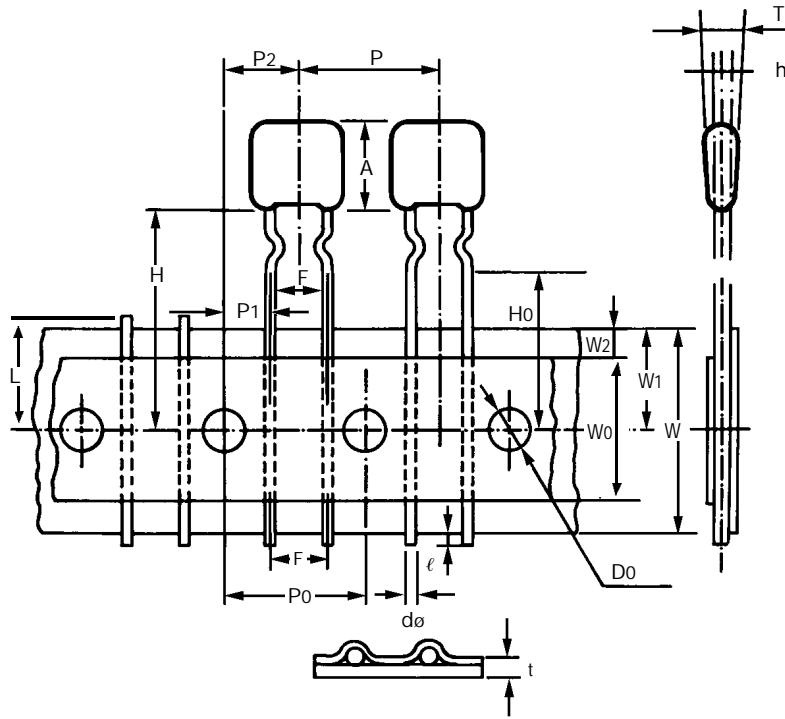


Film Capacitors

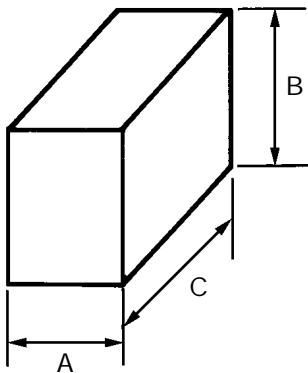
Taping Reference

Radial Tape Reel and Ammo Pack

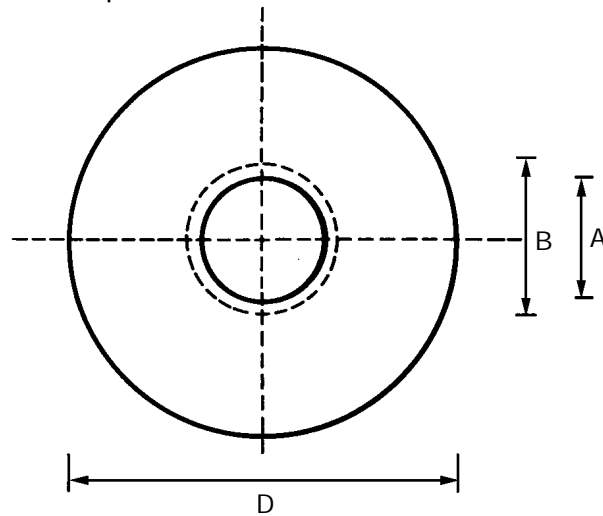
Unit: mm



A	12.5 (MAX)
T	6.5 (MAX)
P	12.7 ± 1 mm
P0	12.7 ± 0.3 mm
P1	3.85 ± 0.7 mm
P2	6.35 ± 1.3 mm
d	0.6 ± 0.05 mm (PEN/PPN/MEF) 0.5 ± 0.05 mm (PEI)
F	5 + 0.8 mm - 0.2 mm
h0	± 2 mm
W	18 + 1 mm - 0.5
W0	12.5 mm (MIN)
W1	9 ± 0.5 mm
W2	3 mm (MAX)
ℓ	1 mm (MAX)
D0	4 ± 0.2 mm
t	0.7 ± 0.2 mm
L	11 mm (MAX)
H0	16 ± 0.5 mm
H	20.5 ± 0.75 mm (PEI) 22.5 ± 0.75 mm (PEN/PPN/MEF)



A: 50 ± 2 mm
B: 260 mm (MAX)
C: 340 mm (MAX)



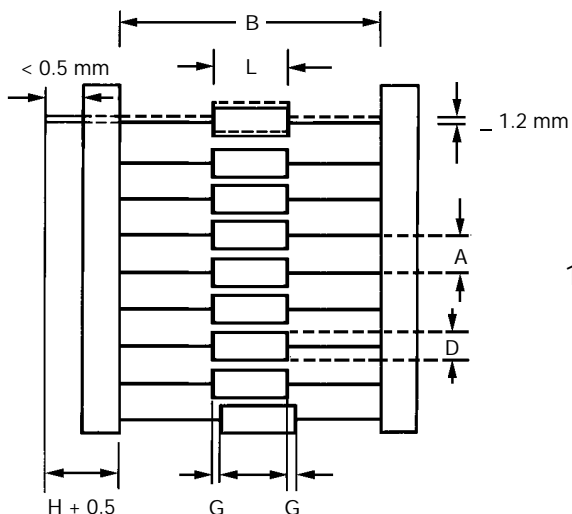
A: 28 ± 3 mm
B: 80 mm (MIN)
D: 360 mm (MAX)

W1: 45 +5
-2 mm
W2: 55 mm (MAX)

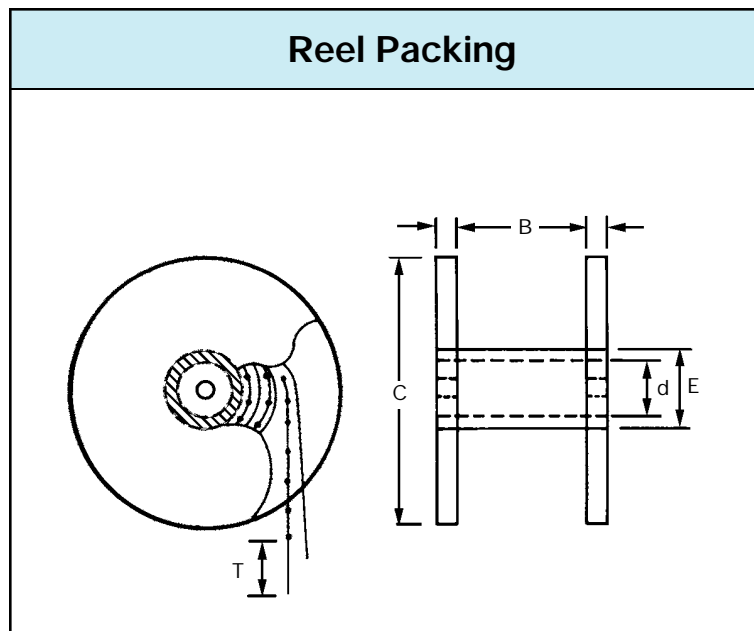
Taping Reference

Unit: mm

Axial Lead Tape And Reel



D	A	L	B
D 5	5 ± 0.5	L 16.5	52.4 ± 1.5
$5.1 < D$ 10	10 ± 0.5	$17 < L$ 28	63.5 ± 1.5
$10.1 < D$ 15	15 ± 0.5	$28.5 < L$ 37	73 ± 1.5



Dimensions Unit: mm		
Tape Spacing	"B"	See above
Tape width	"H"	6 ± 0.5
Reel diameter	"C"	356 ± 5
Body Location	"G"	0.7
Core diameter	"E"	90
Arbor hole diameter	"d"	30
Bare tape at both terminals of reel	"T"	915 MIN.

DIA. Range	Packing Quantity PCS/PER Reel
D 5	3000
$5.5 < D$ 10	500~1500
$10.5 < D$ 15	200~500



Polyester Film Capacitors

PEI/PEIM are inductively wound with Polyester film dielectric and aluminum foil as the electrode with copper-clad steel leads and epoxy resin coated. They are suitable for blocking, by-pass and coupling in timing circuits and filters. They are ideal for applications in TV, Radio, Tape-recorder, stereo, and other consumer electronic equipment.

Features:

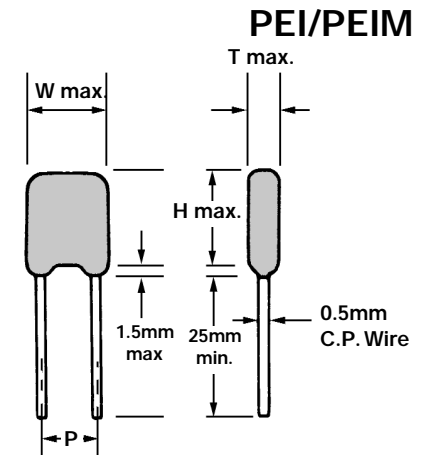
- High moisture resistance
- Good solderability
- Available on tape and ammo pack for automatic insertion
- Low ESR
- Space-saving miniature size

Electrical Characteristics:

- Operating temperature -40°C ~ +85°C
- Capacitance range 0.001µF ~ 0.47µF
- Rated voltage DC 50V, 100V, 200V, 400V, 630V
- Dissipation Factor 0.0075 (at 1KHz)
- Insulation Resistance 50,000 MEGOHM MIN.

Tolerance:

- J (±5%), K(±10%), M (±20%)



Dimension (mm) PEI

Cap Code	Cap µF	50&100VDC				200VDC				400VDC			
		W	T	H	P	W	T	H	P	W	T	H	P
102	.001	5.8	3.3	10.5	3.0	7.0	4.0	11.0	3.0	8.0	4.0	12.0	3.0
122	.0012	5.8	3.3	10.5	3.0	7.0	4.0	11.0	3.0	8.0	4.0	12.0	3.0
152	.0015	5.8	3.3	10.5	3.0	7.0	4.0	11.0	3.0	8.0	4.0	12.0	3.0
182	.0018	5.8	3.3	10.5	3.0	7.0	4.0	11.0	3.0	8.0	4.0	12.0	3.0
222	.0022	5.8	3.3	10.5	3.0	7.0	4.0	11.0	3.0	9.0	5.0	12.0	4.0
272	.0027	5.8	3.3	10.5	3.0	7.0	4.0	11.0	3.0	9.0	5.0	12.0	4.0
332	.0033	5.8	3.3	10.5	3.0	7.0	4.0	11.0	3.0	9.0	5.0	12.0	4.0
392	.0039	6.0	3.5	10.5	3.0	7.0	4.0	11.0	3.0	9.0	5.0	12.0	4.0
472	.0047	6.0	3.5	10.5	3.0	7.0	4.0	11.0	3.0	9.0	6.0	12.0	4.0
562	.0056	6.0	3.5	10.5	3.0	7.0	4.0	11.0	3.0	10.0	6.0	12.0	4.0
682	.0068	6.0	3.5	10.5	3.0	7.0	4.0	11.0	3.0	10.0	6.0	12.0	4.0
822	.0082	6.5	4.0	10.5	3.0	7.0	4.5	11.0	3.0	10.0	6.0	12.0	4.0
103	.01	6.5	4.0	10.5	3.0	7.0	4.5	11.0	3.0	10.01	6.0	14.0	5.0
123	.012	6.5	4.0	10.5	3.0	7.0	4.5	11.0	3.0	0.0	6.0	14.0	5.0
153	.015	7.5	4.0	10.5	4.0	9.0	5.0	13.0	4.0	10.0	6.0	14.0	5.0
183	.018	7.5	4.0	10.5	4.0	9.0	5.0	13.0	4.0	10.0	6.0	14.0	6.0
223	.022	7.8	4.5	10.5	4.0	9.0	5.0	13.0	4.0	10.0	6.0	14.0	6.0
273	.027	7.8	4.5	12.0	5.0	9.0	5.5	13.0	5.0	11.0	6.0	14.0	6.0
333	.033	8.0	4.6	12.0	5.0	9.0	5.5	13.0	5.0	12.0	7.0	14.0	7.0
393	.039	8.0	5.0	12.5	5.0	11.0	6.0	14.0	5.0	12.0	7.0	16.0	7.0
473	.047	9.3	5.0	12.5	6.0	11.0	6.0	14.0	6.0	13.0	8.0	16.0	8.0
563	.056	9.7	5.0	12.5	6.0	11.0	7.0	14.0	6.0	14.0	9.0	16.0	9.0
683	.068	10.0	5.5	12.5	6.0	12.0	7.0	14.0	6.0	15.0	10.0	17.0	10.0
823	.082	10.5	6.0	12.5	7.0	13.0	8.0	15.0	7.0	15.0	11.0	20.0	10.0
104	.1	11.5	6.5	13.0	7.0	14.0	8.0	15.0	7.0	15.0	12.0	20.0	10.0
124	.12	12.0	7.0	13.0	7.0	14.0	8.0	15.0	7.0	16.0	13.0	20.0	10.0
154	.15	12.0	7.0	15.0	7.0	15.0	8.0	17.0	7.0				
184	.18	12.0	7.5	16.0	8.0	16.0	9.0	18.0	8.0				
224	.22	13.5	8.0	16.0	8.0	18.0	10.0	18.0	8.0				
274	.27	14.0	8.5	16.0	8.0								
334	.33	15.5	8.5	19.0	10.0								
394	.39	16.0	9.0	20.0	10.0								
474	.47	18.0	10.0	21.0	10.0								

(Miniature Size) PEIM

Cap Code	Cap µF	50&100VDC			
		W	T	H	P
102-562	.001-.0056	5.5	3.0	7.5	3.0
682-103	.0068-.01	6.0	3.0	7.5	3.0
123-183	.012-.018	6.5	3.5	9.5	4.0
223	.022	6.5	4.0	9.5	4.0
273-333	.027-.033	7.0	4.0	9.5	5.0
393-473	.039-.047	8.0	4.0	9.5	5.0
563-683	.056-.068	9.0	5.0	11.0	5.0 or 6.0
823	.082	9.0	5.5	11.5	5.0 or 7.0
104-124	.10-.12	10.0	6.0	11.5	5.0 or 7.0
154	.15	11.0	6.0	12.5	5.0 or 7.0
184	.18	11.0	7.0	13.0	5.0 or 8.0
224	.22	12.0	7.0	13.0	5.0 or 8.0
274	.27	13.0	8.0	14.0	5.0 or 8.0
334	.33	13.0	8.0	14.5	5.0 or 10.0
394	.39	14.0	10.0	15.0	5.0 or 10.0
474	.47	15.0	11.0	15.0	5.0 or 10.0

* For specifications on 630V please consult factory.

Polyester Film Capacitors



PEN

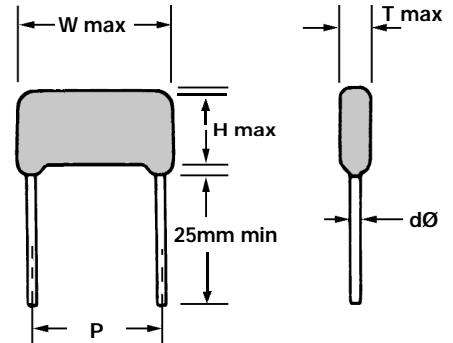
PEN are non-inductively wound with Polyester film dielectric and aluminum foil electrode with copper-clad steel leads and epoxy resin coated. They are ideal for applications in commercial industrial equipment requiring noiseless small signal circuits.

Features:

- High stability and reliability.
- Excellent environmental performance
- Low ESR
- Non-inductive construction minimizes dissipation factor

Specifications:

- Operating Temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Capacitance Range: $.001\mu\text{F} \sim .47\mu\text{F}$
- Capacitance Tolerance: J ($\pm 5\%$), K ($\pm 10\%$), M ($\pm 20\%$)
- Rated Voltage: 50 VDC, 100 VDC, 200 VDC
- Dissipation Factor: 0.8%Max at 1 KHz, 25°C
- Insulation Resistance: $>20000 \text{ M } (\text{C} < .1\mu\text{F})$
 $>2000 \text{ M } \mu\text{F} (\text{C} > .1\mu\text{F})$



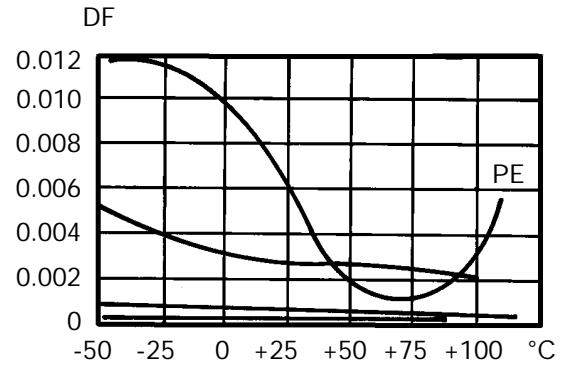
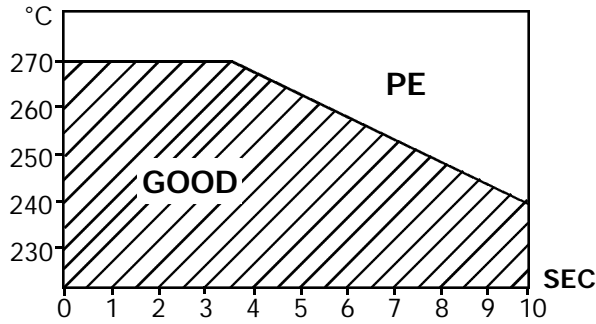
Unit: mm

CAP Code	R.V. CAP μF Size	50VDC/100VDC					200VDC				
		W	H	T	P	dØ	W	H	T	P	dØ
102	.001	10.5	9.5	5	7±1	0.6	10.5	9.5	5	7±1	0.6
152	.0015	10.5	9.5	5.5	7±1	0.6	10.5	9.5	5.5	7±1	0.6
222	.0022	10.5	9.5	5.5	7±1	0.6	10.5	9.5	5.5	7±1	0.6
332	.0033	10.5	9.5	5.5	7±1	0.6	10.5	9.5	5.5	7±1	0.6
472	.0047	10.5	9.5	5.5	7±1	0.6	10.5	9.5	5.5	7±1	0.6
682	.0068	10.5	9.5	5.5	7±1	0.6	10.5	9.5	5.5	7±1	0.6
103	.01	10.5	9.5	6	7±1	0.6	10.5	9.5	6	7±1	0.6
153	.015	10.5	9.5	6	7±1	0.6	13.5	10	6	10±1.5	0.6
223	.022	10.5	9.5	6	7±1	0.6	13.5	11	6	10±1.5	0.6
333	.033	13.5	10	6	10±1.5	0.6	13.5	13	7	10±1.5	0.6
473	.047	13.5	11.5	7.5	10±1.5	0.6	14	14	8	10±1.5	0.6
683	.068	13.5	12.5	7	10±1.5	0.6	19	16	9	15±1.5	0.8
104	.1	14	13	8	10±1.5	0.6	19	17	9	15±1.5	0.8
154	.15	19	13.5	7.5	15±1.5	0.8	20	18	10	15±1.5	0.8
224	.22	20	15	8.5	15±1.5	0.8	26	21	10.5	21±1.5	0.8
334	.33	20	17.5	10.5	15±1.5	0.8	26	22	11.5	22±1.5	0.8
474	.47	20	21.5	13	15±1.5	0.8	31	24	13	27.5±1.5	0.8

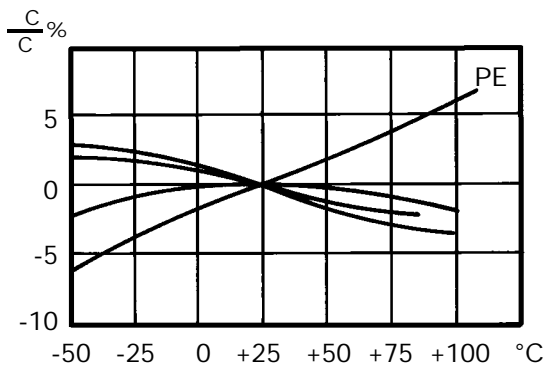


Polyester Film Capacitors

Soldering Temperature VS Time



Temperature Characteristics



Frequency Characteristics

