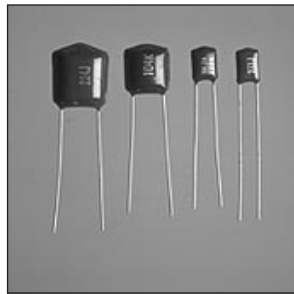


PEI Series

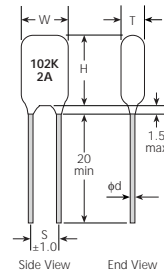
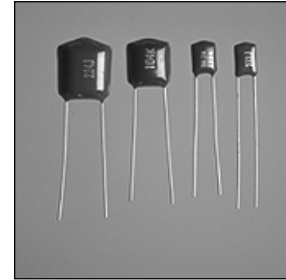
Polyester, Film / Foil
General Purpose, Inductive, Radial



Plastic Film Capacitor

Features:

- Electrically equivalent to PQ92 series
- Miniaturized version for high component density applications
- Positive temperature coefficient
- High insulation resistance and low dissipation factor
- Solvent resistant and moisture proof green epoxy coating
- Excellent combination of high performance and low cost
- Available in bulk or on tape/box with formed or straight leads



Part Numbering System

PEI	102	K	100	AT
Series Code	Capacitance	Tolerance	Voltage	Package
	0.001 μ F to 0.22 μ F (Expressed in pF where the first two digits identify the first and second significant figures of capacitance and the third digit identifies the multiplier)	J = \pm 15% K = \pm 10% M = \pm 20%	100 = 100Vdc	AT = Ammo Null = Bulk

NEW Part Numbering System (effective 03/98)

PEI	102	K	100	B	5	S	25
Series Code	Capacitance	Tolerance	Voltage	Package	Lead Space	Lead Form	Lead Length
	0.001 μ F to 0.22 μ F (Expressed in pF where the first two digits identify the first and second significant figures of capacitance and the third digit identifies the multiplier)	J = \pm 15% K = \pm 10% M = \pm 20%	100 = 100Vdc	A = Ammo/Box B = Bulk/Bag	3.5 = 3.5mm 4 = 4mm 5 = 5mm 6 = 6mm 7 = 7mm 7.5 = 7.5mm 8 = 8mm 10 = 10mm	I = Formed-In S = Straight Lead	3 = 3mm 5 = 5mm 7 = 7mm 10 = 10mm 15 = 15mm 25 = 25mm

PEI Series

No	Item	Performance Characteristics
1	Nominal Capacitance Range	0.001 μ F ~ 0.22 μ F
2	Rated Working Voltage	100 Vdc
3	Operating Temperature Range	-40°C ~ +85°C
4	Capacitance Tolerance	\pm 5%, \pm 10%, \pm 20% (J, K, M)
5	Dissipation Factor $\tan\delta$ (max %)	1.0% max at 1KHz @ 25°C
6	Insulation Resistance	10,000 M Ω min @ 1KHz, 25°C
7	Dielectric Strength	200% working voltage @ 25°C for 2 seconds min.

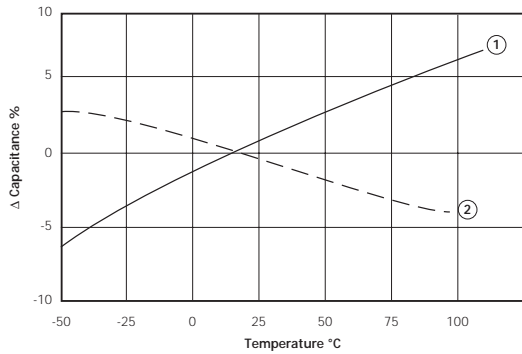
Size Specifications

Dimensions in mm

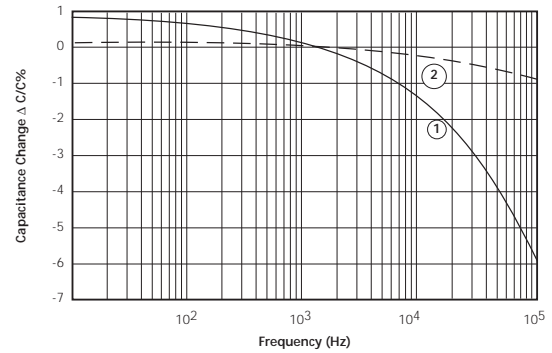
Working Voltage		100 Vdc				
Capacitance (μ F)	Capacitance Code	Height (H) Max	Width (W) Max	Thickness (T) Max	Lead Diameter (ϕ d) \pm 0.05	Lead Space (S) \pm 1.0
0.001	102	8.5	5.5	3.0	0.5	3.5
0.0012	122	8.5	5.5	3.0	0.5	3.5
0.0015	152	8.5	5.5	3.0	0.5	3.5
0.0018	182	8.5	5.5	3.0	0.5	3.5
0.0022	222	8.5	5.5	3.0	0.5	3.5
0.0033	332	8.5	5.5	3.0	0.5	3.5
0.0047	472	8.5	5.5	3.0	0.5	3.5
0.0068	682	8.5	5.5	3.0	0.5	4.0
0.0082	822	8.5	5.5	3.0	0.5	4.0
0.01	103	8.5	5.5	3.0	0.5	4.0
0.012	123	8.5	6.0	3.0	0.5	4.0
0.015	153	8.5	6.0	3.0	0.5	4.0
0.018	183	9.0	6.5	3.0	0.5	4.5
0.022	223	9.0	6.5	3.0	0.5	4.5
0.033	333	9.0	7.0	3.0	0.5	5.5
0.047	473	9.5	7.5	4.0	0.5	5.5
0.068	683	9.5	8.5	5.0	0.5	6.5
0.082	823	9.5	9.0	5.0	0.5	7.0
0.1	104	9.5	9.5	5.5	0.5	7.0
0.12	124	11.5	10.0	5.5	0.5	7.0
0.15	154	11.5	11.5	6.5	0.5	8.0
0.18	184	12.0	11.5	6.5	0.5	8.0
0.22	224	12.0	11.5	7.5	0.5	8.0

Plastic Film Capacitor Graphs

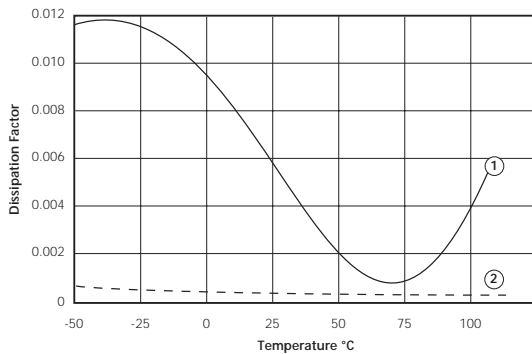
■ Capacitance / Temperature



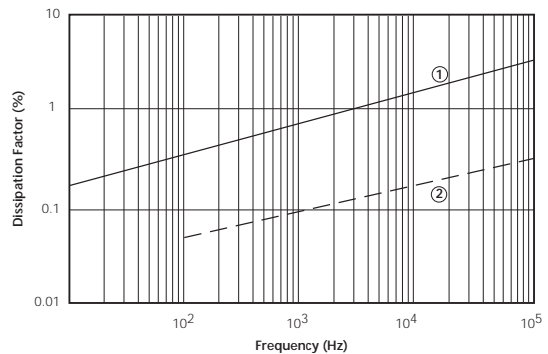
■ Capacitance / Frequency



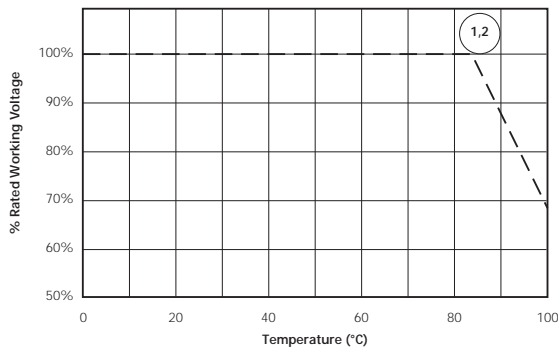
■ Dissipation Factor / Temperature



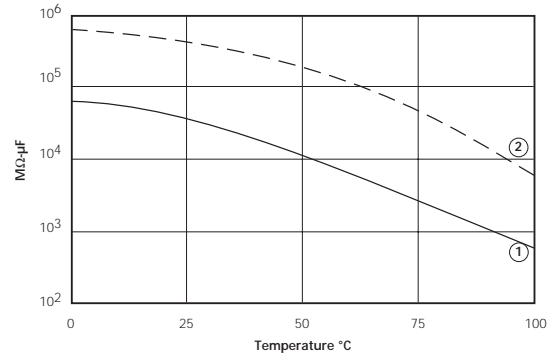
■ Dissipation Factor / Frequency



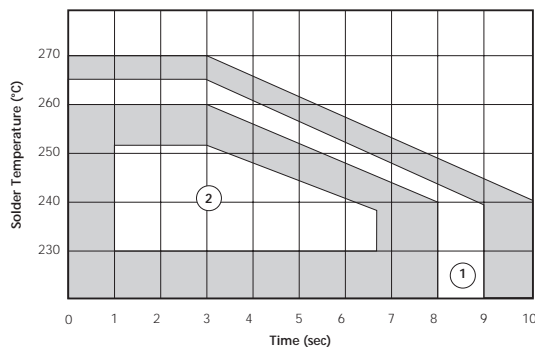
■ Voltage Derating / Temperature



■ Insulation Resistance / Temperature



■ Soldering Temperature / Time



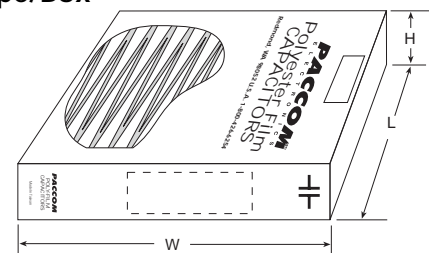
- ① Polyester Dielectric
- ② Polypropylene Dielectric

Leaded Plastic Film Capacitors

Box Capacitor Package Quantities							Dimensions in mm (max)	
Lead Space (S)	Thick (T)	Height (H)	Width (W)	Bulk/Box	Tape/Box	Tape/Reel 355 mm Reel	Tape/Reel 500 mm Reel	
5.0	2.5	5.0	7.2	3,000	3,500	2,500	-	
5.0	2.5	5.0	7.2	3,000	3,500	2,500	-	
5.0	3.0	6.5	7.2	3,000	2,900	2,100	-	
5.0	3.5	6.5	7.2	2,000	2,500	1,800	-	
5.0	4.5	7.5	7.2	1,500	1,900	1,400	-	
5.0	4.75	5.0	7.2	2,500	1,800	1,200	-	
5.0	5.0	10.0	6.3	1,800	-	1,250	-	
5.0	5.0	9.5	7.2	1,000	1,700	1,200	-	
5.0	6.0	10.0	7.2	2,000	1,400	1,000	-	
5.0	7.2	11.0	7.2	1,500	1,150	800	-	
7.5	2.5	13.0	10.0	2,000	3,500	2,500	-	
7.5	3.5	7.0	10.5	3,000	2,500	1,800	-	
7.5	3.5	6.5	10.5	2,000	2,500	1,800	-	
7.5	4.0	8.5	10.5	2,000	2,100	1,500	-	
7.5	5.0	11.0	10.5	1,500	1,600	1,200	-	
7.5	6.0	12.0	10.5	1,000	1,400	1,000	-	
10.0	4.0	9.0	13.0	2,000	1,000	750	1,500	
10.0	5.0	11.0	13.0	1,500	800	600	1,250	
10.0	5.0	7.2	12.3	2,000	-	-	1,250	
10.0	6.0	12.0	13.0	1,000	650	500	1,000	
10.0	6.2	7.5	12.3	1,700	-	-	1,000	
10.0	7.3	8.0	12.3	1,200	-	-	800	
10.0	9.8	11.5	12.3	700	-	-	600	
12.7	6.25	7.5	15.0	1,200	-	-	1,000	
12.7	8.5	9.5	15.0	800	-	-	700	
15.0	5.0	11.0	18.0	2,000	800	600	1,250	
15.0	6.0	12.0	18.0	1,750	650	500	1,000	
15.0	7.5	13.5	18.0	1,000	500	350	800	
15.0	8.5	14.5	18.0	1,000	450	300	700	
15.0	10.0	11.5	17.3	600	-	-	600	
20.0	11.5	12.5	22.3	350	-	-	300	
22.5	6.0	15.0	26.5	805	-	-	700	
22.5	7.0	16.0	26.5	700	-	-	550	
22.5	8.5	17.0	26.5	1,120	-	-	450	
22.5	10.0	18.5	26.5	784	-	-	350	
22.5	11.0	20.0	26.5	672	-	-	350	
25.0	11.5	12.5	27.3	250	-	-	-	
27.5	9.0	17.0	32.0	750	-	-	450	
27.5	10.0	20.0	32.0	560	-	-	350	
27.5	11.0	20.0	32.0	480	-	-	350	
27.5	13.0	22.0	32.0	400	-	-	300	
27.5	14.0	28.0	32.0	312	-	-	-	
27.5	15.0	24.5	32.0	288	-	-	-	
27.5	18.0	33.0	32.0	240	-	-	-	
27.5	22.0	37.0	32.0	128	-	-	-	

Film/Foil Package Quantities			
Cap μF	Formed Leads	Straight Leads	Bulk
0.001~0.01 μF	3,500	3,500	1,000
0.012~0.022 μF	2,500	2,500	1,000
0.033~0.056 μF	1,500	1,500	1,000
0.068~0.1 μF	1,000	1,000	1,000

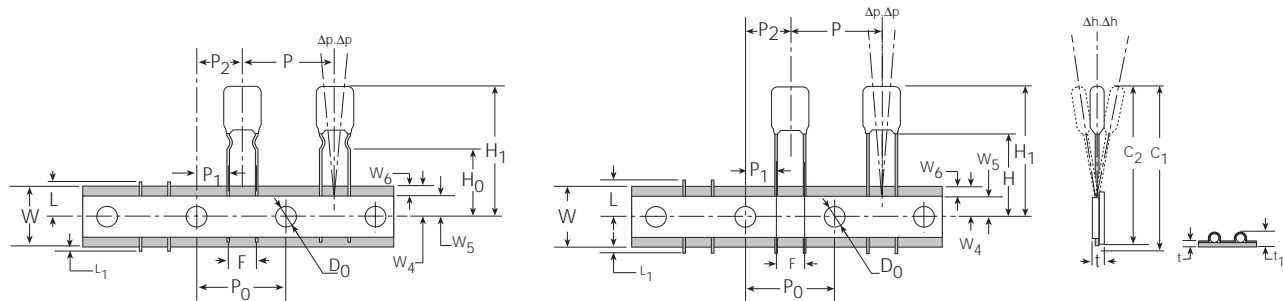
■ Tape/Box



Leaded Plastic Film Capacitors

Series	10mm	15mm	22mm	22.5mm	27.5mm	30mm
MEF	500	250	--	100	100	--
MES	500	250	--	100	100	--
PPM	500	200/250*	--	100	50/100*	
PPH	--	250	100	--	--	50

* Varies by the thickness of the capacitor



Radial Lead Taping Specifications

Dimensions in mm

Description	Symbol	Dimensions
Lead Space	F	5.08 (+0.6/-0.2)
Overall Width With Lead Protrusion	C ₁	43.2 max
Overall Width Without Lead Protrusion	C ₂	42.5 max
Sprocket Hole Diameter	D ₀	4.0±0.2
Height To Seating Plane (Formed Leads)	H ₀	16.0±0.5
Height To Seating Plane (Straight Leads)	H	16.0-21.0
Overall Height Above Abscissa	H ₁	32.2 max
Front To Back Deviation	Δh	0±1.0
Cut Out Length	L	11.0 max
Lead Protrusion	L ₁	1.0 max
Ordinate to Adjacent Component Lead	P ₁	3.85±0.5
Sprocket Hole Pitch	P ₀	12.7±0.3
Plane Deviation	Δp	0±1.3 max
Composite Tape Thickness	t	0.9 max
Overall Tape and Lead Thickness	t ₁	1.5 max
Carrier Tape Width	W	18.0 +1.0/ -0.5
Hold Down Tape Width	W ₄	5.0 min
Sprocket Hole Position	W ₅	9.0 +0.75/ -0.5
Hold Down Tape Position	W ₆	3.0 max

Meets Specification EIA-468-B

Plastic Film and Ceramic Disc Cross Reference

Plastic Film Capacitors								
Paccom	Cornell Dubillier	Illinois Capacitor	Mallory	NIC	Nichicon	Nissei	Panasonic	Roederstein
CHE	—	—	—	NSPC	—	CHE	ECHU	MKT 1824
CPE	—	—	—	—	—	LDE	ECWU	MKN 1802
PQ92	DLR DLM	UMR	—	NEM	—	AMZ	—	—
PEI	—	—	—	—	YX	AMC	—	—
MEF	DMM	MSR	—	NRM	XJ	MMH	ECQ-E	—
MES	—	—	—	—	XN	MMH MMC	—	—
MET	MMWA	MWR	150	NTM	AS	R50	—	MKT 1813
MMT	—	—	—	—	—	MMT	ECQ-V	—
60	—	—	160	—	—	R60	—	MKT 1822
67 / 84	—	—	167/184	—	—	R67/R84	—	MKT 1818
68 / 85	—	—	168/185	—	—	R68/R85	—	MKT 1817
R40	—	—	—	—	EW	R40	ECQ-UV	—
R41	—	—	—	—	XB	R41	ECQ-UY	—
76	—	—	—	—	—	R76	—	—
PPI	—	—	—	—	—	APS	—	—
PPH	—	—	—	—	—	MPV	—	—
PPM	—	MPR	—	—	XF	—	—	—
Ceramic Disc Capacitors								
Paccom Series	Illinois Capacitor	Mallory	Murata	NIC	Panasonic	Phillips		
PC	BCR	GE (Class I) GH (Class I) GM (Class I)	—	NCD (Class I)	ECC	D DTZ		
PK	GCR GHR	—	—	NCD (Class II)	ECK	DD		
PS	GMR GQR	LC LE	—	NCD (Class III)	ECF	DD		
PY	—	UN	DE7	—	—	—		