

## Series: PEC (Standard)

Stacked metallized PEN film as dielectric with simple mold-less construction.

### FEATURES

Small in size (minimum size 3.2 x 1.6 mm)

85°C, 85%RH, W.V. x 1.0 for 500 hours

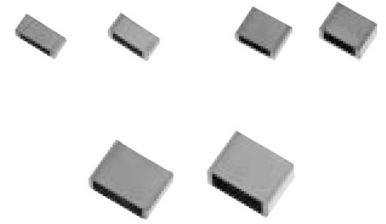
Applicable for reflow soldering

### RECOMMENDED APPLICATIONS

Coupling

By-pass

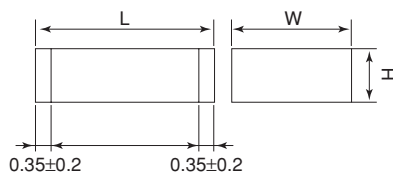
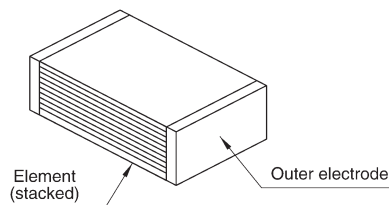
General purpose



### SPECIFICATIONS

Category temp.range	16VDC, 50VDC: -55 to +105°C	
	100VDC, 250VDC: -40 to +85°C	
	400VDC: -55 to +85°C	
Rated voltage	16VDC, 50VDC, 100VDC, 250VDC, 400VDC	
Capacitance range	16VDC	0.12 to 0.47 µF (E12)
	50VDC	0.056 to 0.22 µF (E12)
	100VDC	0.012 to 1.0 µF (E12)
	250VDC	0.001 to 1.0 µF (E12)
	400VDC	0.001 to 0.15 µF (E12)
Capacitance tolerance	16VDC, 50VDC, 400VDC	±5% (J)
	100VDC, 250VDC	±10% (K) (100VDC, C≤0.15 µF ± 5% (J), ± 10% (K))
Withstand voltage	Between terminals:	16VDC, 50VDC: Rated volt.(VDC)x175% 1 to 5s 100VDC, 250VDC, 400VDC: Rated volt.(VDC)150% 60s
Dissipation factor	≤ 1.0%(20°C 1kHz)	
Insulation resistance	C ≤ 0.33µF	16VDC: ≥3000MΩ (20°C, 10VDC 60s) 50VDC: ≥3000MΩ (20°C, 50VDC 60s) 100VDC, 250VDC: 400VDC: ≥3000MΩ (20°C, 100VDC 60s)
	C > 0.33µF	16VDC: 1000MΩ • µF min. (20°C, 10VDC 60s) 100VDC, 250VDC: 1000MΩ • µF min. (20°C, 100VDC 60s)
Soldering conditions	Reflow soldering:	16VDC, 50VDC: 240°C max. and 30 sec. max. at more than 210°C (Temp. at cap. surface)
		100VDC, 250VDC; 400VDC: 230°C max. and 30 sec. max. at more than 210°C (Temp. at cap. surface)

### CONSTRUCTION



### DIMENSIONS IN MM (NOT TO SCALE)

Size code	L	Tol.	W	Tol.	H	Tol.
H2	3.2	±0.2	1.5	±0.2	1.1	±0.2
H3	3.2	±0.2	1.6	±0.2	1.6	±0.2
G2	3.2	±0.2	2.5	±0.2	1.5	±0.2
G3	3.2	±0.2	3.5	±0.2	3.1	±0.2
E1	4.8	±0.2	3.3	±0.3	1.4	±0.2
E2	4.8	±0.2	3.3	±0.3	2.0	±0.2
E3a	4.8	±0.2	3.3	±0.3	2.4	±0.2
E3	4.8	±0.2	3.3	±0.3	2.8	±0.2
D1	6.0	±0.2	4.1	±0.3	1.8	±0.2
D2	6.0	±0.2	4.1	±0.3	2.0	±0.2
D3	6.0	±0.2	4.1	±0.3	2.4	±0.2
D4	6.0	±0.2	4.1	±0.3	2.8	±0.2
D5	6.0	±0.2	4.1	±0.3	3.2	±0.2
B	6.0	±0.2	5.0	±0.4	•	±0.3
Z	7.1	±0.4	5.0	±0.4	•	±0.3
X	7.7	±0.4	5.5	±0.4	•	±0.3
Y	7.1	±0.4	6.3	±0.4	•	±0.3
V	9.8	±0.5	6.3	±0.4	•	±0.3
U	9.8	±0.5	8.0	±0.4	•	±0.3
T	15.2	±0.5	8.0	±0.4	•	±0.3
S	15.2	±0.5	10.0	±0.4	•	±0.3

**RATING, DIMENSIONS & QUANTITY/REEL**

Cap. (µF)	Rating volt. 16VDC						Rating volt. 50VDC					
	Part No.	Dimensions (mm)			Code	Qty	Part No.	Dimensions (mm)			Code	Qty
		L	W	H				L	W	H		
0.056							PEC563J50TE2	4.8	3.3	2.0	E2	3000
0.068							PEC683J50TE2	4.8	3.3	2.0	E2	3000
0.082							PEC823J50TE3A	4.8	3.3	2.4	E3A	2000
0.1							PEC104J50TE3	4.8	3.3	2.8	E3	2000
0.12	PEC124J16TE1	4.8	3.3	1.4	E1	3000	PEC124J50TD1	6.0	4.1	1.8	D1	3000
0.15	PEC154J16TE2	4.8	3.3	2.0	E2	3000	PEC154J50TD2	6.0	4.1	2.0	D2	3000
0.18	PEC184J16TE2	4.8	3.3	1.4	E2	3000	PEC184J50TD3	6.0	4.1	2.4	D3	2000
0.22	PEC224J16TE3A	4.8	3.3	2.4	E3A	2000	PEC224J50TD4	6.0	4.1	2.8	D4	2000
0.27	PEC274J16TD1	6.0	4.1	1.8	D1	3000						
0.33	PEC334J16TD2	6.0	4.1	2.0	D2	3000						
0.39	PEC394J16TD3	6.0	4.1	2.4	D3	2000						
0.47	PEC474J16TD4	6.0	4.1	2.8	D4	2000						

Cap. (µF)	Rating volt. 100VDC						Rating volt. 250VDC					
	Part No.	Dimensions (mm)			Code	Qty	Part No.	Dimensions (mm)			Code	Qty
		L	W	H				L	W	H		
0.001	PEC102□100TH2	3.2	1.6	1.1	H2	3000	PEC102K250TE1	4.8	3.3	1.4	E1	3000
0.0012	PEC122□100TH2	3.2	1.6	1.1	H2	3000	PEC122K250TE1	4.8	3.3	1.4	E1	3000
0.0015	PEC152□100TH2	3.2	1.6	1.1	H2	3000	PEC152K250TE1	4.8	3.3	1.4	E1	3000
0.0018	PEC182□100TH2	3.2	1.6	1.1	H2	3000	PEC182K250TE1	4.8	3.3	1.4	E1	3000
0.0022	PEC222□100TH2	3.2	1.6	1.1	H2	3000	PEC222K250TE1	4.8	3.3	1.4	E1	3000
0.0027	PEC272□100TH2	3.2	1.6	1.1	H2	3000	PEC272K250TE1	4.8	3.3	1.4	E1	3000
0.0033	PEC332□100TH3	3.2	1.6	1.5	H3	2000	PEC332K250TE1	4.8	3.3	1.4	E1	3000
0.0039	PEC392□100TH3	3.2	1.6	1.5	H3	2000	PEC392K250TE1	4.8	3.3	1.4	E1	3000
0.0047	PEC472□100TH3	3.2	1.6	1.5	H3	2000	PEC472K250TE1	4.8	3.3	1.4	E1	3000
0.0056	PEC562□100TG2	3.2	2.5	1.5	G2	2000	PEC562K250TE1	4.8	3.3	1.4	E1	3000
0.0068	PEC682□100TG2	3.2	2.5	1.5	G2	2000	PEC682K250TE1	4.8	3.3	1.4	E1	3000
0.0082	PEC822□100TG3	3.2	2.5	2.1	G3	2000	PEC822K250TE1	4.8	3.3	1.4	E1	3000
0.01	PEC103□100TG3	3.2	2.5	2.1	G3	2000	PEC103K250TE1	4.8	3.3	1.4	E1	3000
0.012	PEC123□100TE1	4.8	3.3	1.4	E1	3000	PEC123K250TE1	4.8	3.3	1.4	E1	3000
0.015	PEC153□100TE1	4.8	3.3	1.4	E1	3000	PEC153K250TE1	4.8	3.3	1.4	E1	3000
0.018	PEC183□100TE1	4.8	3.3	1.4	E1	3000	PEC183K250TE2	4.8	3.3	2.0	E2	3000
0.022	PEC223□100TE1	4.8	3.3	1.4	E1	3000	PEC223K250TE2	4.8	3.3	2.0	E2	3000
0.027	PEC273□100TE1	4.8	3.3	1.4	E1	3000	PEC273K250TE3A	4.8	3.3	2.4	E3A	2000
0.033	PEC333□100TE1	4.8	3.3	1.4	E1	3000	PEC333K250TE3	4.8	3.3	2.8	E3	2000
0.039	PEC393□100TE1	4.8	3.3	1.4	E1	3000	PEC393K250TD2	6.0	4.1	2.0	D2	3000
0.047	PEC473□100TE2	4.8	3.3	2.0	E2	3000	PEC473K250TD3	6.0	4.1	2.4	D3	2000
0.056	PEC563□100TE2	4.8	3.3	2.0	E2	3000	PEC563K250TD4	6.0	4.1	2.8	D4	2000
0.068	PEC683□100TE3A	4.8	3.3	2.4	E3A	2000	PEC683K250TD5	6.0	4.1	3.2	D5	2000
0.082	PEC823□100TE3	4.8	3.3	2.8	E3	2000	PEC823K250TB	6.0	5.0	3.2	B	1500
0.1	PEC104□100TD1	6.0	4.1	1.8	D1	3000	PEC104K250TB	6.0	5.0	3.8	B	1500
0.12	PEC124□100TD3	6.0	4.1	2.4	D3	2000	PEC124K250TY	7.1	6.3	2.8	Y	1000
0.15	PEC154□100TD4	6	4.1	2.8	D4	2000	PEC154K250TY	7.1	6.3	3.5	Y	1000
0.18	PEC184K100TZ	7.1	5.0	2.0	Z	1500	PEC184K250TY	7.1	6.3	4.1	Y	1000
0.22	PEC224K100TZ	7.1	5.0	2.4	Z	1500	PEC224K250TY	7.1	6.3	5.1	Y	1000
0.27	PEC274K100TZ	7.1	5.0	2.9	Z	1500	PEC274K250TV	9.8	6.3	3.9	V	1000
0.33	PEC334K100TZ	7.1	5.0	3.5	Z	1500	PEC334K250TV	9.8	6.3	4.8	V	1000
0.39	PEC394K100TX	7.7	5.5	3.4	X	1000	PEC394K250TU	9.8	8.0	4.4	U	1000
0.47	PEC474K100TX	7.7	5.5	4.0	X	1000	PEC474K250TU	9.8	8.0	5.3	U	1000
0.56	PEC564K100TV	9.8	6.3	3.0	V	1000	PEC564K250TT	15.2	8.0	3.7	T	750
0.68	PEC684K100TV	9.8	6.3	3.6	V	1000	PEC684K250TT	15.2	8.0	4.4	T	750
0.82	PEC824K100TV	9.8	6.3	4.3	V	1000	PEC824K250TS	15.2	10.0	4.2	S	750
1.0	PEC105K0100TV	9.8	6.3	5.1	V	1000	PEC105K250TS	15.2	10.0	5.1	S	750

## RATING, DIMENSIONS & QUANTITY/REEL

Cap. (µF)	Rating volt. 400VDC					
	Part No.	Dimensions (mm)			Code	Qty
		L	W	H		
0.001	PEC102J400TE1	4.8	3.3	1.4	E1	3000
0.0012	PEC122J400TE1	4.8	3.3	1.4	E1	3000
0.0015	PEC152J400TE1	4.8	3.3	1.4	E1	3000
0.0018	PEC182J400TE1	4.8	3.3	1.4	E1	3000
0.0022	PEC222J400TE1	4.8	3.3	1.4	E1	3000
0.0027	PEC272J400TE1	4.8	3.3	1.4	E1	3000
0.0033	PEC332J400TE1	4.8	3.3	1.4	E1	3000
0.0039	PEC392J400TE1	4.8	3.3	1.4	E1	3000
0.0047	PEC472J400TE1	4.8	3.3	1.4	E1	3000
0.0056	PEC562J400TE2	4.8	3.3	2.0	E2	3000
0.0068	PEC682J400TE2	4.8	3.3	2.0	E2	3000
0.0082	PEC822J400TE3A	4.8	3.3	2.4	E3A	2000
0.01	PEC103J400TE3	4.8	3.3	2.8	E3	2000
0.012	PEC123J400TD2	6.0	4.1	2.0	D2	3000
0.015	PEC153J400TD3	6.0	4.1	2.4	D3	2000
0.018	PEC183J400TD4	6.0	4.1	2.8	D4	2000
0.022	PEC223J400TD3	6.0	4.1	3.2	D3	2000
0.027	PEC273J400TB	6.0	5.0	3.0	B	1500
0.033	PEC333J400TB	6.0	5.0	3.6	B	1500
0.039	PEC393J400TZ	7.1	5.0	3.2	Z	1500
0.047	PEC473J400TZ	7.1	5.0	3.8	Z	1500
0.056	PEC563J400TY	7.1	6.3	3.6	Y	1000
0.068	PEC683J400TY	7.1	6.3	4.4	Y	1000
0.082	PEC823J400TV	9.8	6.3	3.4	V	1000
0.1	PEC104J400TV	9.8	6.3	4.0	V	1000
0.12	PEC124J400TU	9.8	8.0	3.8	U	1000
0.15	PEC154J400TU	9.8	8.0	4.6	U	1000

## EXAMPLE FOR LAND DIMENSIONS (MM)

Size Code	Land dimensions		
	Reflow soldering		
	A	B	C
H2, H3	1.8	3.6	1.4
G2, G3	1.8	3.6	2.3
E1, E2, E3A, E3	2.6	6.6	3.0
D1, D2, D3, D4, D5	3.8	7.8	3.8
B	3.8	7.8	4.6
Z	4.5	9.0	4.6
X	5.1	9.7	5.0
Y	4.5	9.0	5.7
V	7.2	11.9	5.7
U	7.2	11.9	7.2
T	12.6	17.3	7.2
S	12.6	17.3	9.0

