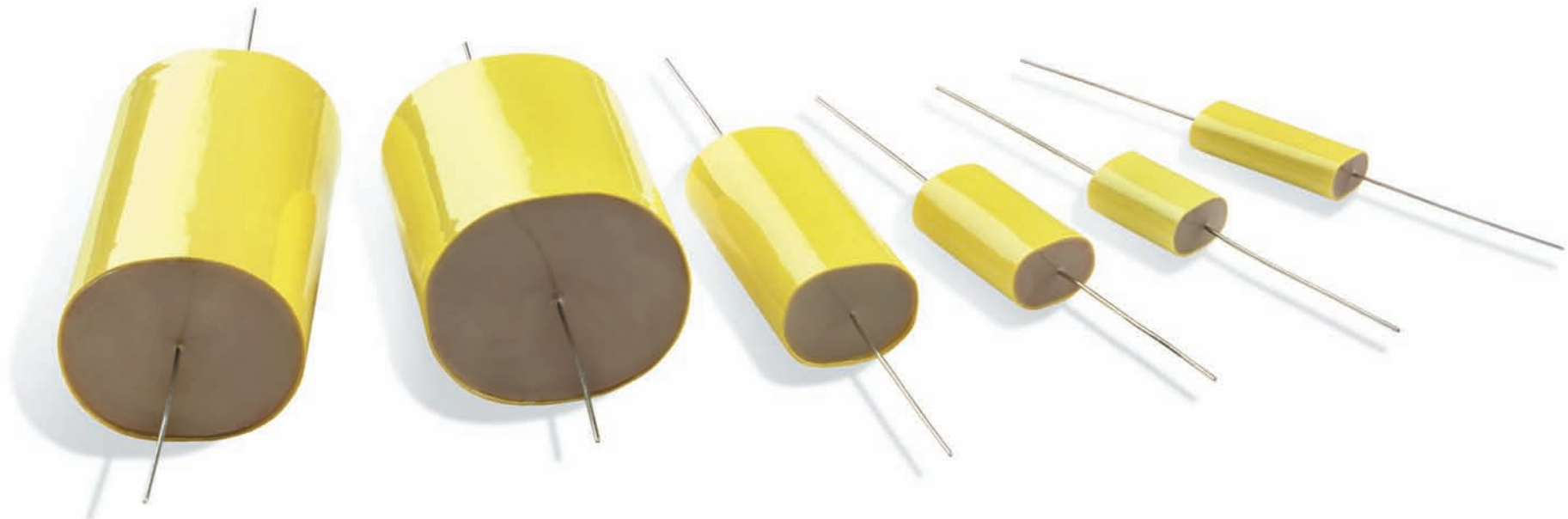


Axials : DC Voltage rated

TW : Polyester 63V - 630Vdc rated

PW : Polypropylene 160V - 630Vdc rated

General purpose polypropylene and polyester axial wrap and end seal capacitors. Offering a wide range of capacitance and voltage alternatives. Ideal for applications as diverse as coupling, energy storage in SMPS and high quality hi-fi.



Full text description

Both of these capacitors are constructed using the familiar ‘wrap and end seal’ method - wrapping the wound elements with heavy duty electrical tape which is wider than the element and sealing the cavities formed at each end with epoxy resin. This style of manufacture results in a cost effective and volumetrically efficient component of the highest quality.

The capacitance and voltage ranges are amongst the widest currently available, giving design engineers and component specifiers alike the flexibility to meet most of their needs from one source. Due to the low loss and low dielectric absorption performance of the PW range it lends itself to sample and hold circuits and high quality hi-fi. The TW range is ideal for applications as diverse as simple coupling and energy storage in switched mode power supplies.

Technical details

Capacitance range	Polypropylene : 68nF to 100 μ F Polyester : 10nF to 47 μ F See size chart for details	Temperature range	-55 to +100°C
Tolerance	$\pm 10\%$ standard. Others by request	Environmental category	55/100/56 to EN60068 - 1 (IEC68 - 1)
Dissipation factor	Polypropylene ≤ 0.001 @ 1KHz & 20 $\pm 3^\circ$ C Polyester ≤ 0.008 @ 1KHz & 20 $\pm 3^\circ$ C	Proof voltage test	1.5 x rated voltage for 30s. Not to be repeated
Insulation resistance	$\geq 10^4 M\Omega \cdot \mu F$ ($C > 330nF$), $\geq 3 \times 10^4 M\Omega$ ($C \leq 330nF$) @ rated voltage and 20 $\pm 3^\circ$ C	Solderability	BS2011 : Part 2.1 T (IEC 68 - 2 - 20) Solder Globule Method of test Ta
Rated voltage	Polypropylene : 160V, 250V, 400V & 630Vdc Polyester : 63V, 100V, 160V, 250V 400V & 630Vdc	Vibration	EN60068 - 2 - 6 (IEC 68 - 2 - 6) Test Fc 10 to 500 Hz 0.75mm or 98m/s ²
Pulse performance	See table. Ratings assume linear change to / from rated voltage	Bump	EN60068 - 2 - 29 (IEC 68 - 2 - 29) Test Eb 390m/s ² 1000 ± 10 bumps

Size chart : Axials : TW & PW : Part 1#3

CAP (μF)	TW : 63Vdc				TW : 100Vdc				PW : 160Vdc TW : 160Vdc							
	L	W	T	t	L	W	T	t	L	L	W	W	T	T	t	t
	TW	TW	TW	TW	TW	TW	TW	TW	PW	TW	PW	TW	PW	TW	PW	TW
0.01																
0.015																
0.022																
0.033																
0.047																
0.068																
0.1																
0.15																
0.22					15	7	4	0.6			15	7		4		0.6
0.33	15	7	4	0.6	15	8	5	0.6			15	8		5		0.6
0.47	15	8	5	0.6	15	9	6	0.6	20	15	11	10	6	7	0.6	0.6
0.68	15	9	6	0.6	20	8	5	0.6	20	20	12	9	7.5	6	0.6	0.6
1.0	20	8	5	0.6	20	9	7	0.6	20	20	14.5	11	10	8	0.6	0.6
1.5	20	10	7	0.6	20	11	8	0.6	30	20	14	13	9.5	10	0.8	0.8
2.2	20	11	8	0.6	20	13	10	0.8	30	20	16	14	11.5	12	0.8	0.8
3.3	30	12	7	0.8	30	14	8	0.8	30	30	18.5	16	14	10	0.8	0.8
4.7	30	14	8	0.8	30	16	10	0.8	34	30	19	18	14.5	12	0.8	0.8
6.8	30	16	10	0.8	30	19	13	0.8	34	30	22.5	21	17.5	15	0.8	0.8
10.0	30	19	13	0.8	30	22	16	0.8	34	30	26.5	25	22	19	0.8	0.8
15.0	34	20	14	0.8	34	23	17	0.8	47	34	26	26	21.5	20	0.8	0.8
22.0	34	23	18	0.8	34	27	21	0.8	47	34	31	31	26	25	0.8	0.8
33.0	34	28	22	0.8	34	33	27	0.8	47		37.5		33		0.8	
47.0	34	32	26	0.8					47		44		39		*0.8	
68.0									47		52		47		*0.8	
100.0									47		62		57		*0.8	

PW Range : *These values are available with tinned copper braid terminations for extra physical strength and current carrying capacity.

Size chart : Axials : TW & PW : Part 2#3

CAP (µF)	PW : 250Vdc TW : 250Vdc								PW : 400Vdc TW : 400Vdc							
	L	L	W	W	T	T	t	t	L	L	W	W	T	T	t	t
	PW	TW	PW	TW	PW	TW	PW	TW	PW	TW	PW	TW	PW	TW	PW	TW
0.01																
0.015																
0.022																
0.033										15	7		4		0.6	
0.047										15	8		5		0.6	
0.068		15		7		4		0.6		15	9		6		0.6	
0.1		15		8		6		0.6	20	15	10	10	5.5	8	0.6	0.6
0.15	20	15	10	10	5	7	0.6	0.6	20	20	11.5	9	7	7	0.6	0.6
0.22	20	15	11	12	6	9	0.6	0.6	20	20	13.5	11	8.5	8	0.6	0.6
0.33	20	20	12.5	10	8	8	0.6	0.6	20	20	16	13	11	10	0.6	0.8
0.47	20	20	15	12	10	9	0.6	0.8	20	20	18	15	13.5	13	0.8	0.8
0.68	20	20	17	14	12.5	11	0.8	0.8	30	30	17	14	12.5	11	0.8	0.8
1.0	30	20	16	17	11.5	14	0.8	0.8	30	30	20	18	15	13	0.8	0.8
1.5	30	30	19	17	14	12	0.8	0.8	30	30	23.5	22	19	16	0.8	0.8
2.2	30	30	22	20	17.5	15	0.8	0.8	30	34	28	23	23.5	17	0.8	0.8
3.3	30	30	26.5	24	22	19	0.8	0.8	34	34	29.5	27	25	21	0.8	0.8
4.7	34	34	27	25	22.5	19	0.8	0.8	34	34	34.5	32	30	26	0.8	0.8
6.8	34	34	32	29	27	24	0.8	0.8	47	47	33.5	31	28.5	26	0.8	0.8
10.0	47	34	31	35	26	29	0.8	0.8	47	47	39.5	38	34.5	32	0.8	0.8
15.0	47	47	37	35	32	30	0.8	0.8	47	47	47.5	46	42.5	40	*0.8	0.8
22.0	47	47	44	42	39	36	*0.8	0.8	60		49		44		*0.8	
33.0	60		46		41		*0.8		60		59		54		*0.8	
47.0	60		54		49		*0.8									
68.0																
100.0																

PW Range : *These values are available with tinned copper braid terminations for extra physical strength and current carrying capacity.

ICW : Product guide : Axials : DC Voltage rated : TW / PW

Size chart : Axials : TW & PW : Part 3#3

CAP (μF)	L		W		T		t	
	PW	TW	PW	TW	PW	TW	PW	TW
0.01		15		6		3		0.6
0.015		15		7		4		0.6
0.022		15		8		5		0.6
0.033		15		9		6		0.6
0.047		20		8		5		0.6
0.068	20	20	10.5	9	5.5	6	0.6	0.6
0.1	20	20	11.5	11	6.5	8	0.6	0.6
0.15	20	30	13.5	10	8.5	7	0.6	0.6
0.22	30	30	12.5	12	8	9	0.6	0.8
0.33	30	30	14.5	15	10	12	0.6	0.8
0.47	30	30	16.5	18	12	13	0.8	0.8
0.68	30	34	19.5	19	15	13	0.8	0.8
1.0	34	34	20.5	22	15.5	17	0.8	0.8
1.5	34	34	24	27	19.5	21	0.8	0.8
2.2	34	47	28.5	27	24	21	0.8	0.8
3.3	47	47	28	32	23	26	0.8	0.8
4.7	47	47	33	38	28	32	0.8	0.8
6.8	47	47	39	45	34	39	0.8	0.8
10.0	47		46.5		41.5		*0.8	
15.0								
22.0								
33.0								
47.0								
68.0								
100.0								

PW Range : *These values are available with tinned copper braid terminations for extra physical strength and current carrying capacity.

Rated voltage (Vdc)

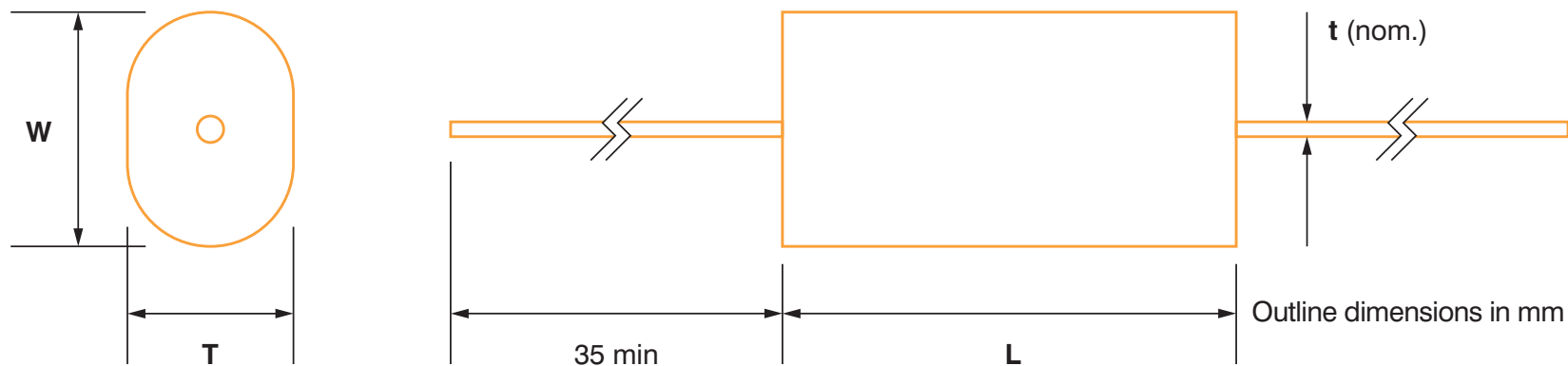
Body length (mm)	Rated voltage (Vdc)											
	63V		100V		160V		250V		400V		630V	
	TW	PW	TW	PW	TW	PW	TW	PW	TW	PW	TW	PW
15	17	27	35		40		60		80			
20	7	11	13	20	15	80	25	150	35	200		
30	3.5	4.5	6	15	7	50	11	100	15	150		
34	2.5	4	5	10	5.5	35	9	50	11	60		
47	1.5	2.5	3	5	4	12	6	20	8	26		
60				2		5		10		15		

Maximum rates of change of Voltage dV/dt (V/μS)

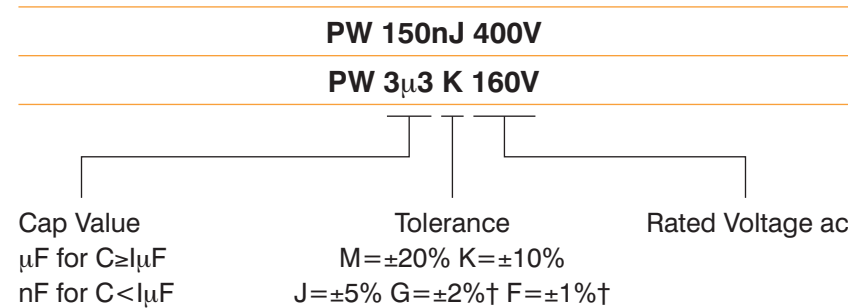
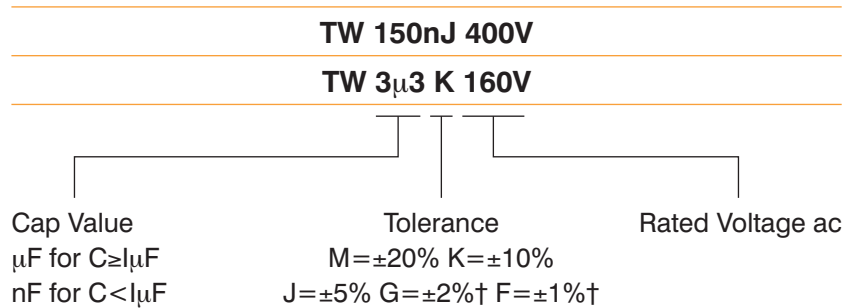
Figures quoted in the chart above assume linear charge/discharge to / from rated voltage.

When applied voltage (V_A) is less than the rated voltage (V_R) the rating may be increased by a factor V_R/V_A .

Outline dimensions



Ordering details



† subject to availability

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