

STANDARD RATINGS

Voltage (Code)		6.3V (0J)			10V (1A)			16V (1C)		
Cap. (μF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
10	106							4 x 5	5.000	50
15	156							4 x 7	3.300	70
								5 x 5	2.600	80
22	226	4 x 5	5.000	50	4 x 7	3.300	70	5 x 7	1.700	110
					5 x 5	2.600	80	5 x 5	2.600	80
33	336	5 x 5	2.600	80	5 x 5	2.600	80	6.3 x 5	1.300	115
		5 x 7	1.700	110	5 x 7	1.700	110	6.3 x 7	0.800	160
47	476	5 x 5	2.600	80	6.3 x 5	1.300	115	6.3 x 5	1.300	115
		5 x 7	1.700	110	6.3 x 7	0.800	160	6.3 x 7	0.800	160
68	686	6.3 x 5	1.300	115	6.3 x 7	0.800	160	8 x 7	0.500	200
		6.3 x 7	0.800	160						
100	107	6.3 x 5	1.300	115	8 x 7	0.500	200	6.3 x 11	0.220	340
		6.3 x 7	0.800	160				8 x 7	0.500	200
120	127							6.3 x 11	0.220	340
150	157	8 x 7	0.500	200	6.3 x 11	0.220	340	6.3 x 11	0.220	340
					8 x 7	0.500	200	8 x 12	0.130	640
180	187	6.3 x 11	0.220	340	6.3 x 11	0.220	340	6.3 x 11	0.220	340
								8 x 12	0.130	640
220	227	8 x 7	0.500	200	6.3 x 11	0.220	340	6.3 x 11	0.220	340
		6.3 x 11	0.220	340				8 x 12	0.130	640
270	277	6.3 x 11	0.220	340	6.3 x 11	0.220	340	8 x 12	0.130	640
					8 x 12	0.130	640			
330	337	6.3 x 11	0.220	340	6.3 x 11	0.220	340	6.3 x 11	0.220	340
		8 x 12	0.130	640	8 x 12	0.130	640	8 x 12	0.130	640
390	397	8 x 12	0.130	640	8 x 12	0.130	640	8 x 12	0.130	640
470	477	8 x 12	0.130	640	6.3 x 11	0.220	340	8 x 12	0.130	640
					8 x 12	0.130	640	10 x 12.5	0.080	865
560	567	8 x 12	0.130	640	8 x 12	0.130	640	10 x 12.5	0.080	865
680	687	8 x 12	0.130	640	8 x 12	0.130	640	8 x 16	0.087	840
								10 x 12.5	0.080	865
820	827	8 x 12	0.130	640	10 x 12.5	0.080	865	10 x 16	0.060	1210
		10 x 12.5	0.080	865						
1000	108	8 x 12	0.130	640	8 x 16	0.087	840	8 x 16	0.087	840
		10 x 12.5	0.080	865	10 x 16	0.060	1210	10 x 16	0.060	1210
1200	128	8 x 16	0.087	840	10 x 20	0.046	1400	10 x 20	0.046	1400
		10 x 12.5	0.080	865						
1500	158	8 x 20	0.069	1050	10 x 20	0.046	1400	10 x 20	0.046	1400
		10 x 16	0.060	1210						
1800	188	10 x 20	0.046	1400	10 x 20	0.046	1400	10 x 25	0.042	1650
								12.5 x 20	0.035	1900
2200	228	10 x 20	0.046	1400	10 x 20	0.046	1400	10 x 25	0.042	1650
								12.5 x 20	0.035	1900
2700	278	10 x 25	0.042	1650	10 x 25	0.042	1650	12.5 x 25	0.030	2124
		12.5 x 20	0.035	1900	12.5 x 20	0.035	1900			
3300	338	10 x 25	0.042	1650	12.5 x 25	0.030	2124	12.5 x 25	0.030	2124
		12.5 x 20	0.035	1900						
3900	398	12.5 x 20	0.035	1900						
4700	478	12.5 x 25	0.030	2124						

Maximum Allowable Ripple Current (mA_{rms}) at 105°C 100kHz

Case Size ϕ D x L (mm)

Maximum Impedance (Ω) at 20°C 100kHz

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STANDARD RATINGS

Voltage (Code)		25V (1E)			35V (1V)			50V (1H)		
Cap. (μF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
3.3	335				4 x 5	5.000	50			
4.7	475	4 x 5	5.000	50	4 x 5	5.000	50			
6.8	685	4 x 5	5.000	50	4 x 7	3.300	70			
					5 x 5	2.600	80			
10	106	4 x 7	3.300	70	5 x 5	2.600	80			
		5 x 5	2.600	80	5 x 7	1.700	110			
15	156	5 x 7	1.700	110	6.3 x 5	1.300	115			
		6.3 x 5	1.300	115	6.3 x 7	0.800	160			
22	226	5 x 7	1.700	110	6.3 x 5	1.300	115			
		6.3 x 5	1.300	115	6.3 x 7	0.800	160			
33	336	6.3 x 5	1.300	115	8 x 7	0.500	200	6.3 x 11	0.300	295
		6.3 x 7	0.800	160						
39	396							6.3 x 11	0.300	295
47	476	8 x 7	0.500	200	6.3 x 11	0.220	340	6.3 x 11	0.300	295
56	566				6.3 x 11	0.220	340	8 x 12	0.170	555
68	686	8 x 7	0.500	200	6.3 x 11	0.220	340	8 x 12	0.170	555
82	826	6.3 x 11	0.220	340	8 x 12	0.130	640	8 x 12	0.170	555
100	107	6.3 x 11	0.220	340	6.3 x 11	0.220	340	10 x 12.5	0.120	760
					8 x 12	0.130	640			
120	127	8 x 12	0.130	640	8 x 12	0.130	640	8 x 16	0.120	730
								10 x 12.5	0.120	760
150	157	8 x 12	0.130	640	8 x 12	0.130	640	10 x 16	0.084	1050
180	187	8 x 12	0.130	640	10 x 12.5	0.080	865	8 x 20	0.091	910
								10 x 16	0.084	1050
220	227	8 x 12	0.130	640	8 x 12	0.130	640	8 x 20	0.091	910
					8 x 16	0.087	840			
					10 x 12.5	0.080	865			
270	277	8 x 12	0.130	640	10 x 16	0.060	1210	10 x 25	0.055	1440
		10 x 12.5	0.080	865						
330	337	8 x 12	0.130	640	8 x 16	0.087	840	12.5 x 20	0.045	1660
		10 x 12.5	0.080	865	8 x 20	0.069	1050			
					10 x 16	0.060	1210			
390	397	10 x 12.5	0.080	865	10 x 16	0.060	1210	12.5 x 20	0.045	1660
470	477	8 x 16	0.087	840	10 x 16	0.060	1210	12.5 x 25	0.034	1950
		10 x 12.5	0.080	865						
		10 x 16	0.060	1210						
560	567	10 x 16	0.060	1210	10 x 20	0.046	1400	12.5 x 25	0.034	1950
680	687	10 x 16	0.060	1210	10 x 20	0.046	1400			
		10 x 20	0.046	1400	12.5 x 20	0.035	1900			
820	827	10 x 20	0.046	1400	10 x 25	0.042	1650			
					12.5 x 20	0.035	1900			
1000	108	10 x 20	0.046	1400	12.5 x 20	0.035	1900			
					12.5 x 25	0.030	2124			
1200	128	10 x 20	0.046	1400						
1500	158	10 x 25	0.042	1650						
		12.5 x 20	0.035	1900						
1800	188	12.5 x 25	0.030	2124						
2200	228	12.5 x 25	0.030	2124						

Maximum Allowable Ripple Current (mArms) at 105°C 100kHz

Case Size ΦD x L (mm)

Maximum Impedance (Ω) at 20°C 100kHz

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STANDARD RATINGS

Voltage (Code)		63V (1J)			100V (2A)		
Cap. (μF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
15	156				6.3 x 11	0.960	115
22	226	6.3 x 11	0.960	115			
27	276	6.3 x 11	0.960	115	8 x 12	0.504	232
33	336	6.3 x 11	0.960	115			
39	396	8 x 12	0.504	232	8 x 16	0.360	300
47	476	8 x 12	0.504	232	10 x 12.5	0.344	314
56	566	8 x 12	0.504	232	8 x 20	0.264	362
68	686	8 x 12	0.504	232	10 x 16	0.248	357
82	826	10 x 12.5	0.344	314	10 x 20	0.168	466
100	107	8 x 16	0.360	300	10 x 20	0.168	466
		10 x 12.5	0.344	314	12.5 x 20	0.128	690
120	127	8 x 16	0.360	300	12.5 x 20	0.128	690
		10 x 16	0.248	357			
150	157	8 x 20	0.264	362			
180	187	10 x 20	0.168	466	12.5 x 25	0.096	922
220	227	10 x 16	0.248	357	12.5 x 25	0.096	922
		10 x 20	0.168	466			
270	277	12.5 x 20	0.128	690			
330	337	12.5 x 20	0.128	690			
390	397	12.5 x 25	0.096	922			

Maximum Allowable Ripple Current (mA_{rms}) at 105°C 100kHz

Case Size $\Phi D \times L$ (mm)

Maximum Impedance (Ω) at 20°C 100kHz

RIPPLE CURRENT MULTIPLIER

Frequency Coefficient

Coefficient Cap. (μF)	Freq. (Hz)	120	1k	10k	100k
≤180		0.40	0.75	0.90	1.00
220~560		0.50	0.85	0.94	1.00
680~1800		0.60	0.87	0.95	1.00
2200~3900		0.75	0.90	0.95	1.00
4700		0.85	0.95	0.98	1.00

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* Automotive

Taping Specifications (編帶產品規格)

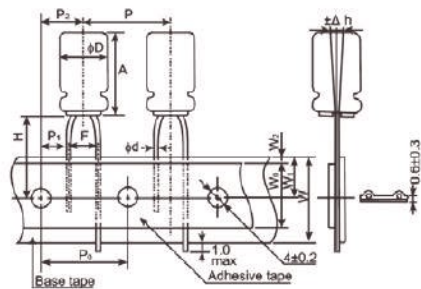


Fig-1

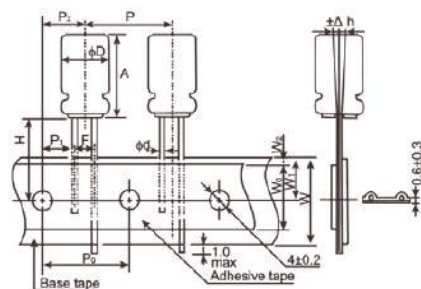


Fig-2

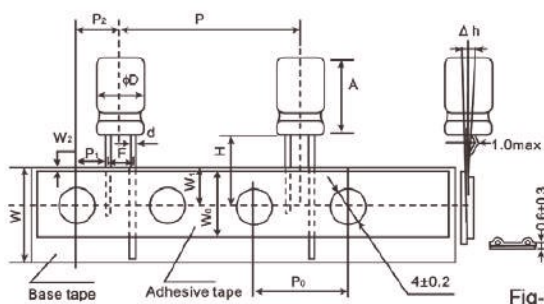


Fig-3

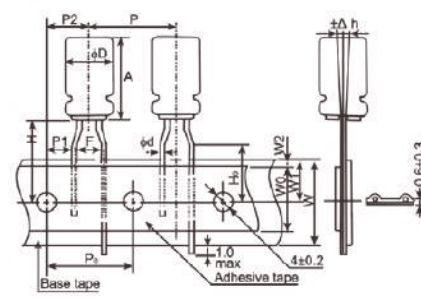
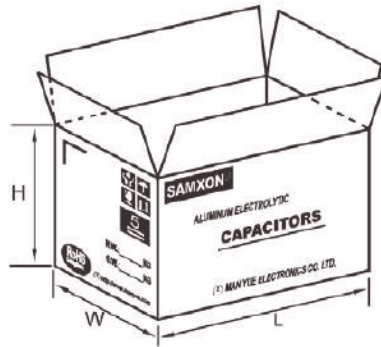


Fig-4

SPECIFICATIONS

Item		Dimensions (mm)														
Reference figure		Fig 1				Fig 2				Fig 3		Fig 4				Tol.
Diameter	D	3	4 ~ 5	5	6.3	8	10	12.5	16, 18	4, 5, 6.3	5, 6.3	8	11 ~ 20			
Height	A	5	5 ~ 7	9 ~ 15	5 ~ 7	9 ~ 15	11 ~ 20	9 ~ 21	15 ~ 35	15 ~ 40	5 ~ 7	9 ~ 15	5 ~ 9	11 ~ 20		
Lead Diameter	d	0.4	0.45	0.5	0.45	0.5	0.5	0.6	0.6	0.8	0.45	0.5	0.45	0.5		±0.05
Component Spacing	P		12.7		12.7	12.7	12.7	15	30		12.7		12.7			±1.0
Pitch of sprocket holes	P0		12.7		12.7	12.7	12.7	15	15		12.7		12.7			±0.2
Distance between centres of component leads	F		2.5		2.5	3.5	5.0	5.0	7.5		5.0		5.0			±0.5 ±0.8
Carrier tape width	W		18.0		18.0	18.0	18.0	18.0	18.0		18.0		18.0			±0.5
Distance between the center of upper edge of carrier tape and sprocket holes	W1		9.0		9.0	9.0	9.0	9.0	9.0		9.0		9.0			±0.5
Distance between the abscissa and the bottom of the components body	H		18.5		18.5	18.5	18.5	18.5	18.5		17.5	18.5	17.5	20.0		±0.5 ±0.75
Distance between the abscissa and the reference plane of the components with crimped leads	H0		-		-	-	-	-	-		16.0		16.0			±0.5
Hold down tape width	W0		7.0		7.0	7.0	7.0	12	12		7.0		7.0			Min.
Max. lateral deviation of the component body vertical to the tape plane	Δh		0		0	0	0	0	0		0		0			±1.0
Distance between the upper edges of the carrier tape and the hold down tape	W2		0 ~ 3		0 ~ 3	0 ~ 3	0 ~ 3	0 ~ 3	0 ~ 3		0 ~ 3		0 ~ 3			-
Distance between center of terminal and the sprocket holes	P1		5.1		5.1	4.6	3.85	5.0	3.75		3.85		3.85			±0.5
Distance between center of the component and sprocket holes	P2		6.35		6.35	6.35	6.35	7.5	7.5		6.35		6.35			±1.0

Packing Specifications (包裝規格)



PACKING QUANTITY (TAPING TYPE)

ΦD x L (mm)	L (mm)	W (mm)	H (mm)	Inner Box Quantity	Outer Box Quantity
3 x 5	330	229	51	3,000	30,000
4 x 5 ~ 7	330	229	51	2,500	25,000
5 x 5 ~ 11	330	229	51	2,000	20,000
6.3 x 5 ~ 12	330	229	51	1,500	15,000
8 x 5 ~ 12	330	229	51	1,000	10,000
8 x 14 ~ 20	330	229	64	1,000	8,000
10 x 12.5	330	191	51	500	5,000
10 x 16	330	191	56	500	5,000
10 x 20 ~ 25	323	191	64	500	4,000
10 x 30	330	191	69	500	4,000
12.5 x 20	325	267	58	500	2,000
12.5 x 25	325	270	63	500	2,000
12.5 x 35	325	270	74	500	2,000
16 x 25	315	221	63	250	1,000
16 x 30 ~ 35	315	221	76	250	1,500
18 x 20 ~ 25	343	275	63	250	1,000
18 x 30 ~ 35	343	275	73	250	500
18 x 40	343	275	73	250	500

PACKING QUANTITY (BULK TYPE)

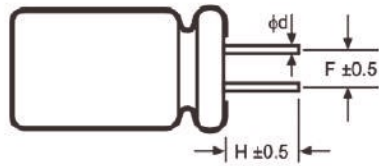
Long Lead Wire Product			
ΦD x L (mm)	Plastic Bag Quantity	Inner Box Quantity	Outer Box Quantity
3 x 5	1,000	24,000	96,000
4 x 5	1,000	16,000	64,000
4 x 7	1,000	14,000	56,000
5 x 5	1,000	12,000	48,000
5 x 7	1,000	10,000	40,000
5 x 11	1,000	8,000	32,000
6.3 x 5 ~ 7	1,000	8,000	32,000
6.3 x 11	1,000	6,000	24,000
8 x 5 ~ 7	1,000	6,000	24,000
8 x 9	500	4,000	16,000
8 x 10 ~ 16	500	3,000	12,000
8 x 20	200	1,600	6,400
8 x 25	200	1,200	4,800
10 x 12.5	400	2,400	9,600
10 x 15 ~ 20	200	1,200	7,200
10 x 25 ~ 30	200	1,200	4,800
12.5 x 20	150	1,200	4,800
12.5 x 25	150	900	3,600
12.5 x 30 ~ 35	100	600	2,400
12.5 x 40	—	300	1,800
16 x 20	—	200	2,000
16 x 25 ~ 30	—	200	1,600
16 x 35 ~ 40	—	200	1,200
18 x 15 ~ 20	—	150	1,500
18 x 25 ~ 30	—	150	1,200
18 x 35 ~ 50	—	150	900

PACKING QUANTITY (SNAP-IN)

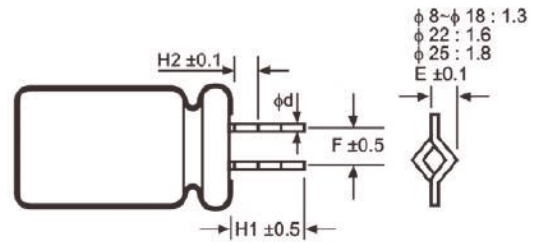
Snap-in Terminal Product					
ΦD x L (mm)	Inner Box Quantity	Outer Box Quantity	ΦD x L (mm)	Inner Box Quantity	Outer Box Quantity
20 x 25	100	1,200	25 x 30 ~ 35	100	800
20 x 30 ~ 40	100	1,000	25 x 40 ~ 50	100	600
22 x 25	100	1,200	30 x 30 ~ 35	50	500
22 x 30 ~ 40	100	1,000	30 x 40 ~ 50	50	400
22 x 45 ~ 50	100	800	35 x 30 ~ 35	40	400
25 x 25	100	1,000	35 x 40 ~ 50	40	320



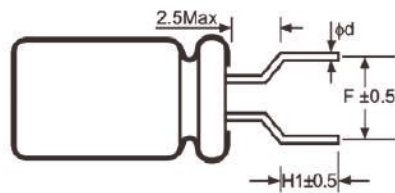
Lead Forming Specifications (成型產品規格)



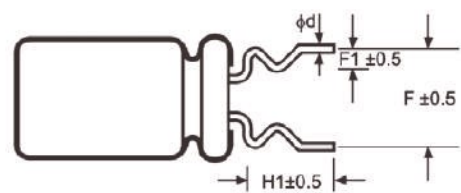
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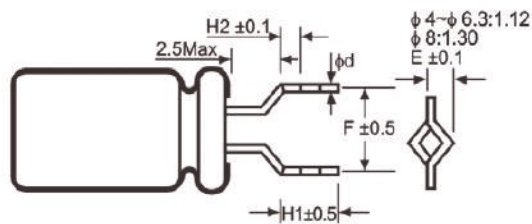
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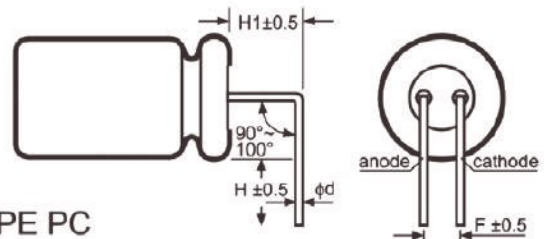
TYPE HE



TYPE EC



TYPE FD



TYPE PC

SHAPE CODE	ΦD	4	5	6.3	8 (L > 5mm)	10	13	16	18
CB	F	1.5	2.0	2.5	3.5	5.0	5.0	7.5	7.5
	H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Φd ±0.05	0.45	0.5	0.5	0.5	0.6	0.6	0.8	0.8
HE	F	5.0	5.0	5.0	5.0	-	-	-	-
	H1	5.0	5.0	5.0	5.0	-	-	-	-
	Φd ±0.05	0.45	0.5	0.5	0.5	-	-	-	-
FD	F	5.0	5.0	5.0	5.0	-	-	-	-
	H1	4.5	4.5	4.5	4.5	-	-	-	-
	H2	1.8	1.8	1.8	1.8	-	-	-	-
	Φd ±0.05	0.45	0.5	0.5	0.5	-	-	-	-
	E	1.12	1.12	1.12	1.30	-	-	-	-
KD	F	-	-	-	-	5.0	5.0	7.5	7.5
	H1	-	-	-	-	4.5	4.5	4.5	4.5
	H2	-	-	-	-	2.0	2.0	2.0	2.0
	Φd ±0.05	-	-	-	-	0.6	0.6	0.8	0.8
	E	-	-	-	-	1.30	1.30	1.30	1.30
EC	F	5.0	5.0	5.0	5.0	-	-	-	-
	F1	1.2	1.2	1.2	1.2	-	-	-	-
	H1	4.0	4.0	4.0	4.0	-	-	-	-
	Φd ±0.05	0.45	0.5	0.5	0.5	-	-	-	-
PC	F	-	2.0	2.5	3.5	5.0	5.0	7.5	7.5
	H	-	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	H1	-	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Φd ±0.05	-	0.5	0.5	0.5	0.6	0.6	0.8	0.8