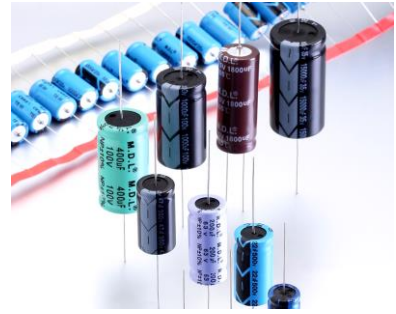


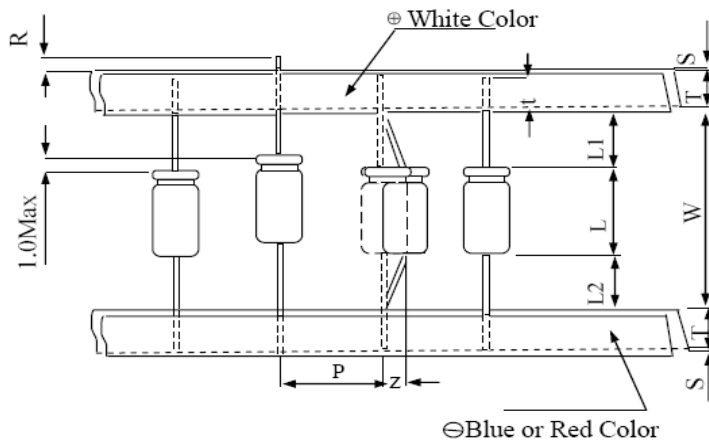
Taping Specification



AXIAL Type Series

Taping Specification

Fig.1



UNIT:mm

φD	W±1.5		P	L1-L2	Z	R	T	t	S
	L≤16	L > 16							
			±0.5		Max	Max	±1.0	Min	Max
5	52	--	10	±1.5	1.2	2	6	3.2	0.8
6.3	52	63	10	±1.5	1.2	2	6	3.2	0.8
8	63	73	10	±1.5	1.2	2	6	3.2	0.8
10	63	73	15	±1.5	1.2	2	6	3.2	0.8
13	63	73	15	±1.5	1.2	2	6	3.2	0.8

備註:

- 1.貼帶
 - (1) 外殼直徑在 5~13mm 可做貼品。
 - (2) 除有特殊要求外,負極用有色(藍色或紅色)貼帶;正極用白色貼帶。
 - (3) 在貼品的第一顆電容器之前與最後一顆電容器之後至少需 250mm 的導帶。
 - (4) 貼品尺寸見圖 1。
- 2.包裝
 - (1) 貼品捲盤及捲軸規格尺寸見圖 2。
 - (2) 牛皮紙用於電容器層與層之間隔離並起到保護作用。
 - (3) 貼品捲繞後,將用一塊紙板封裝好。

Notes:

- 1.Taping
 - (1) Case diameters 5mm to 13mm can be supplied taped & reeled .
 - (2) Unless otherwise specified,the cathode tape shall be red or blue and the anode tape shall be white.
 - (3) A minimum 300mm leader tape shall be provided before the first and after the last capacitor on reel.
 - (4) Dimensions are shown in Fig.1.
- 2.Packing
 - (1) Taped capacitors shall be wound on a reel shown in Fig.2.
 - (2) Kraft paper shall be wound between layers of capacitors for capacitor protection .
 - (3) After winding the taped capacitors on the reel,a single sided corrugated cardboard strip shall be wound over the capacitors (on wrap).

Packaging

Fig.2

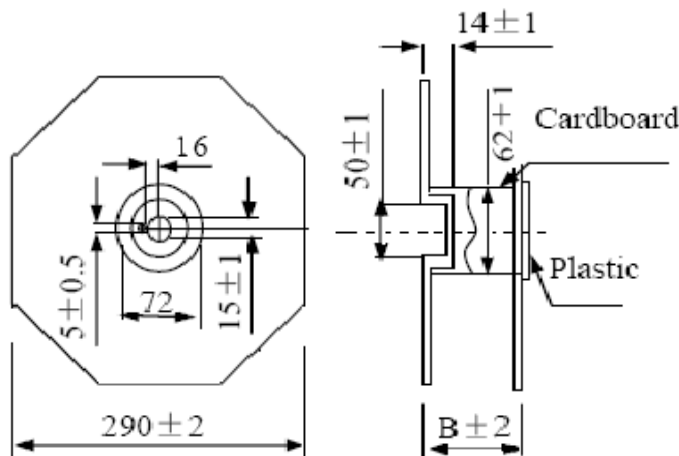
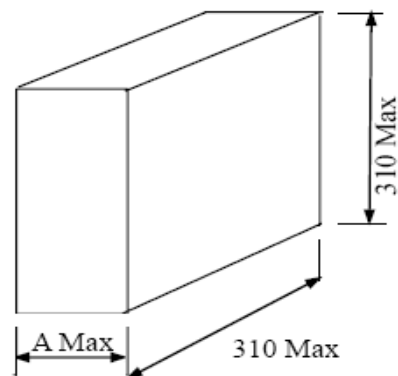


Fig.3



Quantity of packaging

UNIT:pcs

φD	5φ	6φ	6.3φ	8φ	10φ	13φ
Q'ty(PCS)	1200	1000	1000	750	400	250

Box dimension

UNIT:mm

	52	63	73
W	52	63	73
B	70	82	92
A	85	97	107

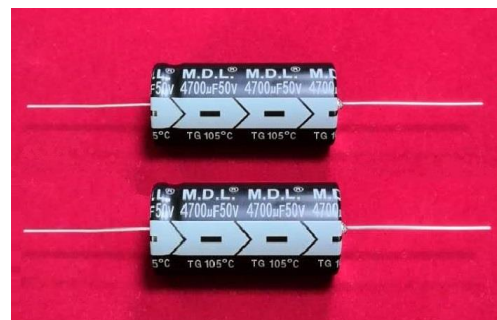
TG

Series

AXIAL Type 105°C

FEATURES

- .105°C, 1,000 hours assured
- . Voltage range of 6.3 ~ 450V
- .Wide operating temperature range, from -40°C~ +105°C

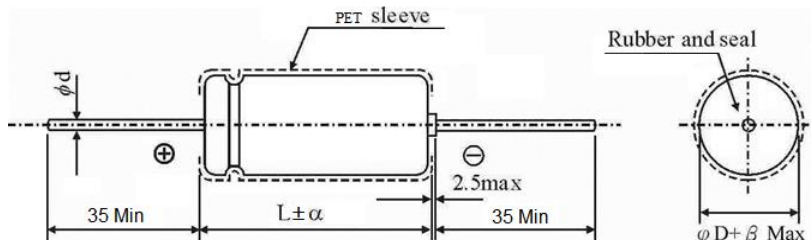


SPECIFICATION

Item	Characteristic																																																																												
Operation Temp 使用溫度範圍	-40°C ~ +105°C																																																																												
Capacitance Tolerance 容量範圍	±10%(K), ±20%(M) (at 20°C, 120Hz)																																																																												
Rated Voltage 額定電壓	6.3 ~ 100VDC	160 ~ 450VDC																																																																											
(20°C) Leakage Current 洩漏電流	$I \leq 0.02CV$ or 3 (u A) Whichever is greater 選其最大值 (after 2 minutes applying the rated DC working Voltage at 20 °C)(在 20°C 施加直流額定電壓 2 分鐘以後)	$I \leq 0.03CV+15$ (u A) for $CV \leq 1000$, $I \leq 0.02CV+25$ (u A) for $CV > 1000$ (after 5 minutes applying the rated DC working Voltage at 20 °C)(在 20°C 施加直流額定電壓 5 分鐘以後)																																																																											
Where: I=Leakage Current (u A) , C=rated Capacitance (μ F) , V= working Voltage (V)																																																																													
(at 20°C, 120Hz) Dissipation Factor (tan δ) 損失角	<table border="1"> <thead> <tr> <th>W.V</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>tan δ</td> <td>0.23</td> <td>0.20</td> <td>0.17</td> <td>0.15</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> <td>0.20</td> <td>0.24</td> <td>0.24</td> </tr> </tbody> </table> <p>Add 0.02 per 1000μ F for more than 1000μ F (當靜電容量超過 1000μ F 時，容量每增加 1000μ F，損失角正切值就增加 0.02)</p>		W.V	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	tan δ	0.23	0.20	0.17	0.15	0.12	0.10	0.09	0.08	0.15	0.15	0.20	0.20	0.24	0.24																																													
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(20°C) Surge Voltage 突破電壓	<table border="1"> <thead> <tr> <th>W.V</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>S.V</td> <td>8</td> <td>13</td> <td>20</td> <td>32</td> <td>44</td> <td>63</td> <td>79</td> <td>125</td> <td>200</td> <td>250</td> <td>300</td> <td>400</td> <td>450</td> <td>500</td> </tr> </tbody> </table>		W.V	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	S.V	8	13	20	32	44	63	79	125	200	250	300	400	450	500																																													
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Low Temperature Stability 低溫溫度特性	<p>Impedance ratio at 120 HZ 阻抗測試頻率為 120Hz</p> <table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)</td> <td>§ D<16</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>6</td> <td>8</td> <td>12</td> <td>14</td> </tr> <tr> <td>+20°C</td> <td>§ D≥16</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>8</td> <td>10</td> <td>-</td> <td>-</td> </tr> <tr> <td>Z(-40°C)</td> <td>§ D<16</td> <td>10</td> <td>8</td> <td>6</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>8</td> <td>10</td> <td>-</td> <td>-</td> </tr> <tr> <td>+20°C</td> <td>§ D≥16</td> <td>18</td> <td>16</td> <td>12</td> <td>10</td> <td>8</td> <td>8</td> <td>6</td> <td>6</td> <td>4</td> <td>8</td> <td>10</td> <td>-</td> <td>-</td> </tr> </tbody> </table>		Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	Z(-25°C)	§ D<16	6	4	3	3	2	2	2	2	3	6	8	12	14	+20°C	§ D≥16	8	6	4	4	3	3	3	3	4	8	10	-	-	Z(-40°C)	§ D<16	10	8	6	6	4	3	3	3	4	8	10	-	-	+20°C	§ D≥16	18	16	12	10	8	8	6	6	4	8	10	-	-
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Load Life Test 高溫負荷壽命	<p>After 1,000 hours application of rated voltage at 105°C, capacitors meet the characteristics requirements listed as below .在額定電壓 105°C 條件下，經過 1,000 小時後，電容特性要求如下表：</p> <table border="1"> <thead> <tr> <th>Capacitance Change</th> <th>Within ±20% of initial value</th> </tr> </thead> <tbody> <tr> <td>Dissipation Factor</td> <td>Less than 200% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </tbody> </table>		Capacitance Change	Within ±20% of initial value	Dissipation Factor	Less than 200% of specified value	Leakage Current	Within specified value																																																																					
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Shelf Life Test 無負荷壽命	<p>After leaving capacitors under no load at 105°C for 1,000 hours and applying Voltage they meet the specified value for load life characteristics listed above .將電容器置於溫度為 105°C、無電壓負荷狀況下，經過 1,000 小時後，再加電壓於電容器，其所測值標準應與有負荷時測試值相同。</p>																																																																												
Frequency Coefficient of Allowable Ripple Current 允許紋波電流的頻率係數	<table border="1"> <thead> <tr> <th>Cap.(μ F)</th> <th colspan="5">Freq.(Hz)</th> </tr> <tr> <th></th> <th>60</th> <th>120</th> <th>500</th> <th>1K</th> <th>10K up</th> </tr> </thead> <tbody> <tr> <td>Under 100</td> <td>0.70</td> <td>1.00</td> <td>1.30</td> <td>1.40</td> <td>1.50</td> </tr> <tr> <td>100 to 1000</td> <td>0.75</td> <td>1.00</td> <td>1.20</td> <td>1.30</td> <td>1.35</td> </tr> <tr> <td>1000 up above</td> <td>0.80</td> <td>1.00</td> <td>1.10</td> <td>1.12</td> <td>1.15</td> </tr> </tbody> </table>		Cap.(μ F)	Freq.(Hz)						60	120	500	1K	10K up	Under 100	0.70	1.00	1.30	1.40	1.50	100 to 1000	0.75	1.00	1.20	1.30	1.35	1000 up above	0.80	1.00	1.10	1.12	1.15																																													
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Allowable Ripple Current Vs; Ambient Temperature 環境溫度對比允許紋波電流的比值	<table border="1"> <thead> <tr> <th>Temperature(°C)</th> <th>Under 50</th> <th>70</th> <th>85</th> <th>105</th> </tr> </thead> <tbody> <tr> <td>Multiplier</td> <td>1.95</td> <td>1.78</td> <td>1.40</td> <td>1.00</td> </tr> </tbody> </table>		Temperature(°C)	Under 50	70	85	105	Multiplier	1.95	1.78	1.40	1.00																																																																	
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TG AXIAL Type 105°C
Series

φ D	5	6.3	8	10	13	16	18	22	25
φ d	0.6	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.8
α	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
β	0.5	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0



CASE SIZE & Max RIPPLE CURRENT

Dimension Diameter (φ D)×Length(L) mm

尺寸：直徑(φ D)×長度 L (mm)

120Hz

Ripple Current: m A/rms at 105°C,120Hz

紋波電流(m A)：溫度 105°C,測試頻率

WV μ F	6.3V		10V		16V		25V		35V		50V		63V		100V	
	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C
0.10											5x12	2	5x12	3	5x12	3
0.22											5x12	3.5	5x12	4.5	5x12	5
0.33											5x12	5	5x12	7.5	5x12	8
0.47											5x12	6	5x12	9	5x12	9
1.0											5x12	10	5x12	15	5x12	15
2.2											5x12	20	5x12	30	5x12	30
3.3											5x12	30	5x12	32	5x12	32
4.7											5x12	34	5x12	36	6.3x13	37
10					5x12	35	5x12	39	5x12	44	5x12	50	6.3x13	55	6.3x13	64
22					5x12	55	6.3x13	63	6.3x13	65	6.3x13	75	6.3x13	90	8x16	106
33			5x12	60	5x12	73	6.3x13	75	6.3x13	96	6.3x13	105	8x13	123	10x17	150
47			5x12	77	6.3x13	85	6.3x13	90	6.3x13	114	8x13	140	8x16	162	10x21	180
100	6.3x13	102	6.3x13	110	6.3x13	145	8x13	166	8x16	180	10x17	225	10x17	248	13x22	287
220	6.3x13	167	8x13	180	8x13	231	8x16	246	10x17	305	10x21	349	13x22	420	16x28	458
330	8x16	236	8x16	253	8x16	323	10x17	345	10x21	391	13x22	450	13x27	495	16x33	582
470	8x16	281	8x16	302	10x17	359	10x21	432	13x22	490	13x22	561	13x27	632	16x36	713
1000	10x17	453	10x17	486	10x21	569	13x22	662	13x27	721	16x33	875	16x40	984	22x40	1148
2200	13x22	740	13x22	793	13x27	926	16x28	1024	16x33	1177	18x40	1408	22x40	1540	25x43	2310
3300	13x27	906	13x27	1015	16x28	1173	16x33	1300	18x40	1449	22x40	1724	25x43	1950		
4700	13x27	1168	16x28	1252	16x33	1443	18x40	1638	22x40	1878	25x41	1950	25x43	2290		

WV μ F	160V		200V		250V		350V		400V		450V	
	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C
1.0	6.3x13	7	6.3x13	9	6.3x13	12	8x16	13	8x16	15	8x16	15
2.2	6.3x13	15	8x13	16	8x16	17	10x17	19	10x17	23	10x21	23
3.3	8x16	21	8x16	26	10x17	31	10x17	33	10x17	36	10x21	36
4.7	8x16	31	10x17	33	10x17	38	10x21	44	10x21	46	13x22	46
10	10x17	60	10x21	66	10x21	72	13x22	72	13x22	79	13x27	82
22	10x21	121	13x22	121	13x27	126	13x27	132	16x33	143	16x36	154
33	13x22	154	13x27	167	16x28	178	16x33	186	16x40	201	16x40	201
47	13x27	198	16x33	214	16x33	241	16x40	253	18x40	253	18x40	304
100	16x33	345	16x33	368	16x40	391	22x40	402	22x43	439	22x43	448
220	18x40	586	22x40	609	22x40	632						
330	22x40	632										