

**TG** AXIAL Type 105°C  
Series



**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"> <tr> <td>W.V</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>tan δ</td> <td>23</td> <td>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> </table> 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)		W.V	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	tan δ	23	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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Low Temperature Stability 低溫溫度特性	Impedance ratio at 120 HZ 阻抗測試頻率為 120Hz <table border="1"> <tr> <td>Rated Voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>Z(-25°C) / +20°C</td> <td> <math>\frac{D &lt; 16}{D \geq 16}</math> </td> <td>6 / 8</td> <td>4 / 6</td> <td>3 / 4</td> <td>3 / 4</td> <td>2 / 3</td> <td>2 / 3</td> <td>2 / 3</td> <td>3 / 3</td> <td>3 / 3</td> <td>3 / 3</td> <td>3 / 3</td> <td>3 / 3</td> <td>3 / 3</td> </tr> <tr> <td>Z(-40°C) / +20°C</td> <td> <math>\frac{D &lt; 16}{D \geq 16}</math> </td> <td>10 / 18</td> <td>8 / 16</td> <td>6 / 12</td> <td>6 / 10</td> <td>4 / 8</td> <td>3 / 8</td> <td>3 / 6</td> <td>3 / 6</td> <td>4 / 4</td> <td>8 / 10</td> <td>-</td> <td>-</td> <td>-</td> </tr> </table>		Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	Z(-25°C) / +20°C	$\frac{D < 16}{D \geq 16}$	6 / 8	4 / 6	3 / 4	3 / 4	2 / 3	2 / 3	2 / 3	3 / 3	3 / 3	3 / 3	3 / 3	3 / 3	3 / 3	Z(-40°C) / +20°C	$\frac{D < 16}{D \geq 16}$	10 / 18	8 / 16	6 / 12	6 / 10	4 / 8	3 / 8	3 / 6	3 / 6	4 / 4	8 / 10	-	-	-
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Load Life Test 高溫負荷壽命	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： <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <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> </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	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。																																														
Frequency Coefficient of Allowable Ripple Current 允許紋波電流的頻率係數	<table border="1"> <tr> <td rowspan="4">Cap.(µ F)</td> <td colspan="5">Freq.(Hz)</td> </tr> <tr> <td>60</td> <td>120</td> <td>500</td> <td>1K</td> <td>10K up</td> </tr> <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> </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"> <tr> <td>Temperature(°C)</td> <td>Under 50</td> <td>70</td> <td>85</td> <td>105</td> </tr> <tr> <td>Multiplier</td> <td>1.95</td> <td>1.78</td> <td>1.40</td> <td>1.00</td> </tr> </table>		Temperature(°C)	Under 50	70	85	105	Multiplier	1.95	1.78	1.40	1.00																																			
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