

CERAMIC DISC CAPACITORS CHARACTERISTICS



32

項目 ITEM	規格 SPECIFICATION		檢測方法及條件 TEST METHOD AND CONDITION															
7. 焊 錫 附 著 性 及 焊 錫 耐 熱 性 Resistance to solder heat and Solder ability of leads	靜電容量 變化率 Capacitance Change	T.C.: $\pm 5\%$ or $\pm 0.5\text{PF}$ HIK、S.C.: Y5E、Y5P、BN: $\pm 10\%$ X7R、Y5R: $\pm 15\%$ Y5T、Y5U、Z5U: $\pm 20\%$ Z5V、Y5V: $\pm 30\%$	<p>將元件端子線浸入$240^\circ\text{C} \pm 5^\circ\text{C}$的溶錫內，端子線浸至離本體邊緣$2.0\text{-}3.0\text{mm}$處，並保持$3+1/-1$秒。試驗前，將元件放置$85+3/-0^\circ\text{C}$中預熱，5分鐘後再進行焊錫試驗；試驗後，元件須放置室溫中24小時後方可進行電氣特性的測試。</p> <p>The lead wire shall be immersed into the melted solder of $240^\circ\text{C} \pm 5^\circ\text{C}$ up to about 2.0 to 3.0 mm from the main body for $3+1/-1$ seconds.. Capacitor shall be measured after leaving for 24 hours at room temperature.</p>															
	Q OR DF	T.C.: ① $\text{C} < 30\text{PF}$: $Q \geq 400 + 20 \times C$ ② $\text{C} \geq 30\text{PF}$: $Q \geq 1000$ HIK: ① Y5E、Y5P、X7R、Z5U、Y5U: DF $\leq 2.5\%$ ② Z5V、Y5V: DF $\leq 5\%$ ③ BN、Y5T: DF $\leq 0.5\%$, Y5R: DF $\leq 0.2\%$																
	S.C.:	① Y5P、Y5U: DF $\leq 5\%$ ② Y5V: DF $\leq 7\%$																
	絕緣電阻 Insulation Resistance	T.C.: $10000\text{M } \Omega$ min HIK: $5000\text{M } \Omega$ min S.C.: $100\text{M } \Omega$ min																
8. 溫度循環 Temp. Cycle	外觀 Appearance	無缺陷 No marked defect	<p>將電容器進行如下五個溫度循環試驗： Capacitor shall be subjected to five cycles of the temperature cycle as following:</p> <table border="1"> <thead> <tr> <th>Step</th><th>Temp. ($^\circ\text{C}$)</th><th>Time</th></tr> </thead> <tbody> <tr> <td>1</td><td>Min rated temp(+0-3)</td><td>30min</td></tr> <tr> <td>2</td><td>25</td><td>30min</td></tr> <tr> <td>3</td><td>Max rated temp(+0-3)</td><td>30min</td></tr> <tr> <td>4</td><td>25</td><td>30min</td></tr> </tbody> </table> <p>放置室溫下一段時間再測量其電氣特性： Measure at room temperature after cooling for: T.C.: 24Hr HIK、S.C.: 48Hr</p>	Step	Temp. ($^\circ\text{C}$)	Time	1	Min rated temp(+0-3)	30min	2	25	30min	3	Max rated temp(+0-3)	30min	4	25	30min
Step	Temp. ($^\circ\text{C}$)	Time																
1	Min rated temp(+0-3)	30min																
2	25	30min																
3	Max rated temp(+0-3)	30min																
4	25	30min																
靜電容量 Capacitance	T.C.: $\pm 5\%$ or $\pm 0.5\text{PF}$ max. HIK、(S.C.): Y5E、Y5P、BN: $\pm 10\%$; X7R、Y5R: $\pm 15\%$; Y5T、Y5U、Z5U: $\pm 20\%$; Z5V、Y5V: $\pm 30\%$.																	
Q OR DF	T.C.: $\text{C} < 30\text{PF}$: $Q \geq 400 + 20 \times C$ $\text{C} \geq 30\text{PF}$: $Q \geq 1000$ HIK Y5E、Y5P、X7R、Y5U、Z5U DF $\leq 5\%$ Y5V、Z5V DF $\leq 7.5\%$ BN、Y5T DF $\leq 1\%$ Y5R DF $\leq 0.5\%$ S.C. Y5P、Y5U DF $\leq 7.5\%$ Y5V DF $\leq 10\%$																	
絕緣電阻 Insulation Resistance	與初始規格值一致 To satisfy the specified initial value.																	
9. 耐濕負荷 Humidity loading	外觀 Appearance	無顯著之異常現象 No marked defect	<p>在溫度40 ($\pm 2^\circ\text{C}$)、相對濕度95%的狀態下，連續施加直流額定電壓（充放電電流為50mA以下）500 ($+24-0$) 小時；</p> <p>試驗後置于室溫中： T.C.類規格需放置24小時以上方可測定其電氣特性； HIK、半導體類規格需放置48小時以上方可測定其電氣特性。</p> <p>Apply rated voltage for $500(+24-0)$hours at $40(\pm 2^\circ\text{C})$ in 95% RH Charge and discharge current 50mA max.</p> <p>Leave the capacitors in ambient condition for over the following time. Measurement T.C.: 24Hrs HIK、S.C.: 48Hrs</p>															
	靜電容量 變化率 Capacitance Change	T.C.: ① $\text{C} < 10\text{PF}$: $Q \geq 200 + 10 \times C$ ② $10\text{PF} \leq \text{C} < 30\text{PF}$: $Q \geq 275 + 2.5 \times C$ ③ $\text{C} \geq 30\text{PF}$: $Q \geq 350$ HIK: Y5E、Y5P、X7R、Y5U、Z5U DF $\leq 5\%$ Y5V、Z5V DF $\leq 7.5\%$ BN、Y5T DF $\leq 1\%$ Y5R DF $\leq 0.5\%$																
	Q OR DF	半導體類 (S.C.): Y5P、Y5U DF $\leq 7.5\%$ Y5V DF $\leq 10\%$																
	絕緣電阻 Insulation resistance	500M Ω min or 25M Ω XUF min.																