

圓片瓷介電容器 CERAMIC DISC CAPACITOR

• 訂貨方式 HOW TO ORDER

$\frac{CC1}{1}$ — $\frac{F}{2}$ — $\frac{7}{3}$ — $\frac{SL}{4}$ — $\frac{1}{5}$ — $\frac{B}{6}$ — $\frac{331}{7}$ — $\frac{J}{8}$ — $\frac{S}{9}$ — $\frac{P}{10}$ — $\frac{W}{11}$

1、產品類型 Capacitor Type Code

類 型	Type	
低壓溫度補償瓷介電容器	CC1	Low voltage temperature compensated disk ceramic capacitor
高壓溫度補償瓷介電容器	CC81	High voltage temperature compensated disk ceramic capacitor
低壓高電介質常數瓷介電容器	CT1	Low voltage high dielectric constant disk ceramic capacitor
高壓高電介質常數瓷介電容器	CT81	High voltage high dielectric constant disk ceramic capacitor
半導體瓷介電容器	CS1	Semiconductor dielectric insulator disk ceramic capacitor
交流瓷介電容器	CT7	Alternating current disk ceramic capacitor

2、額定電壓 Rated voltage

代 號 Letter symbol	D	E	F	G	J	K	L	N	M	P	Q	X	Y
額定電壓 rated voltage	16V	25V	50V	100V	160V	250V	500V	1KV	2KV	3KV	4KV	250VAC	400VAC

3、片徑直徑 Diameter coefficient

代號 symbol	4	5	6	7	8	9	10	12
直徑diameter(mm)	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.0

4、溫度特性見溫度系數及EIA代碼表:

Temperature coefficient: Please consider temperature characteristics and EIA code

5、引線形式 Lead style

代號 symbol	引線形式	Style
1	直腳(長23mm)b式	Straight lend (length 23mm)
2	直腳(長17mm)b式	Straight lend (length 17mm)
3	切腳(短腳)	Cutting leng (short lend)
4	編帶直腳型(b式)	Tape straight lend
5	編帶小內彎型(a型)	Tape small inside kink
6	編帶大內彎型(a型)	Tape large inside kink
7	雙內彎(c式)	Double inside kinks
8	雙外彎(c式)	Double outside kinks
9	外單彎(w式)	Outside kink

6、脚距 Lead distance

代碼 symbol	Lead spacing(mm)
A	2.5+0.8/-0.2
B	5.0+0.8/-0.2
D	7.5+0.8/-0.2
E	10.0+0.8/-0.2

7、標稱容量 Standard capacitance

代碼 symbol	標稱容量	注：標稱容量以pF為單位，用3位數字表示。前兩位數字表示有效數字，第三位為0的個數；R表示小數點。 Note: The unit of standard capacitance if consisting of 3 digits, 1st two digits stand for effective value of the Standard capacitance; third digit indicates the number of zeros; R indicates decimal
1R0	1PF	
4R7	4.7PF	
100	10PF	
560	56PF	
821	820PF	
102	1000PF	
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8、允許偏差見EIA代碼表:

Capacitance tolerance, Please consider EIA code

9、包裝形式 Packing style

代碼 symbol	包裝形式	Packing style
T	盒帶包裝	Tape
S	散包裝	bulk

10、包封形式 Enclosure style

代號 code	包封形式	Enclosure style
E	環氧包封	Epoxy resin
P	酚醛包封	Phenol resin

11.W-表示無鉛產品 Lead-Free

●溫度系數 TEMPERATURE CHARACTERISTICS

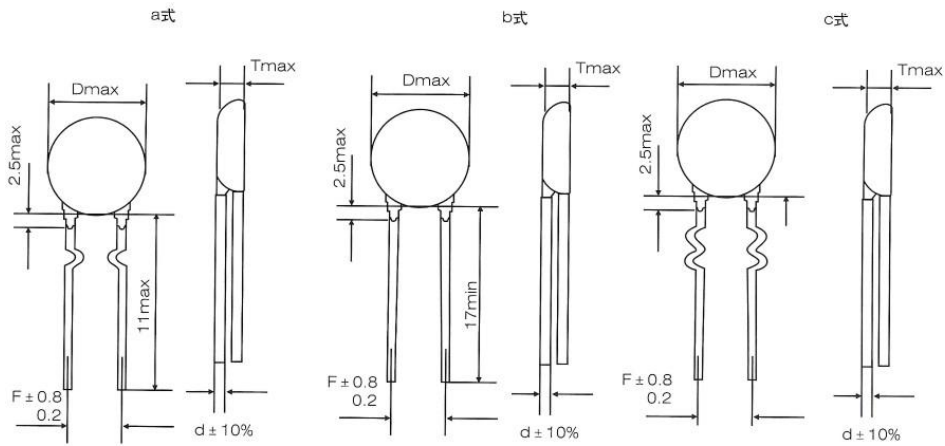
材料溫度系數及允許偏差	材料	EIA代碼	JIS、GB代碼
0 ± 60	NP0	COH	CH
-33 ± 60	N33	S ₁ H	HH
-75 ± 60	N75	U ₁ H	LH
-150 ± 60	N150	P ₂ H	PH
-220 ± 60	N220	R ₂ H	RH
-330 ± 60	N330	S ₂ H	SH
-470 ± 60	N470	T ₂ H	TH
-750 ± 120	N750	U ₂ J	UJ or U ₂ J
+140 ~ -1000	P140 ~ N1000(SL)	S ₂ L	SL or S ₂ L

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● EIA代碼 EIA CODE

第一位數 The First Letter	第二位數 The Second Letter	第三位數 The Third Letter	電容量允許偏差 Capacitance tolerance	
X: -55°C	4: +65°C	E: ±4.7%	C	±0.25pF
Y: -25°C	5: +85°C	F: ±7.5%	D	±0.5pF
Z: +10°C	6: +105°C	P: ±10%	J	±5%
	7: +125°C	R: ±15%	K	±10%
	8: +150°C	S: ±22%	M	±20%
		T: +20% -33%	S	+50% -20%
		U: +22% -56%	Z	+80%/-20%
		V: +22% -82%	P	+100/0

● 外形尺寸 DIMENSIONS



注：引腳距離和引線形式常規按EIA和JIS的標準執行。同時我們可以根據客戶要求，做出符合客戶使用的引腳距離和引線形式。
NOTE: Lead style and distance are fit of JIS and EIA standard. Other we can produce which customers require.

■ CC1型低壓溫度補償型瓷介電容
CC1 TEMPERATURE COMPENSATE CAPACITOR

● 特性 FEATURE:

損耗低、容量穩定性高，電容量變化與溫度呈線性關係。多種溫度系數，適用於諧振回路及溫度補償效應的電路。

Low DF, stable capacitance, the linear capacitance change with temperature. Designed from all series T.C suits for oscillation and temperature compensate compensate circuit.

- 使用溫度範圍: $-30^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Operating Temperature Range: $-30^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- 容量範圍 Capacitance Range:



尺寸DMax (mm) Dimension	容量範圍(Capacitance Range) PF					工作電壓(U _R) operating voltage
	NPO (CH)	N330 (SH)	N470 (TH)	N750 (UJ)	SL	
4.0	1 ~ 15	5 ~ 20	4 ~ 33	5 ~ 68	1 ~ 120	50 ~ 500V
4.5	1 ~ 30	22 ~ 33	20 ~ 68	10 ~ 100	30 ~ 150	
5.0	22 ~ 50	36 ~ 72	56 ~ 100	70 ~ 150	150 ~ 220	
6.0	47 ~ 68	56 ~ 82	68 ~ 120	82 ~ 180	180 ~ 250	
7.0	70 ~ 82	68 ~ 100	82 ~ 150	100 ~ 200	240 ~ 330	
8.0	86 ~ 100	82 ~ 120	100 ~ 180	160 ~ 220	360 ~ 470	
9.0	100 ~ 120	100 ~ 150	120 ~ 200	200 ~ 260	500 ~ 560	
10.0	120 ~ 150	150 ~ 200	220 ~ 270	270 ~ 330	600 ~ 680	
12.0	-----	-----	-----	330 ~ 560	820 ~ 1000	

- 試驗電壓 Test Voltage: $2.5U_R$.
- 絕緣電阻 I.R.: Insulation resistance $R_i \geq 10000M\Omega$.
- 損耗角正切值 DF: $SPF \leq C \leq 30PF$, $tg \delta \leq 1/(400+20C)$
tangent of loss angel 容量 $C > 30PF$, $tg \delta \leq 0.0015$
C < 5pF時按照客戶與生產商協商確定
Please consult your requirements to factory

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CERAMIC DISC CAPACITOR

■ CT1 〈低壓高介電質常數電容〉系列瓷介電容器:

CT1 〈Low voltage High dielectric constant capacitor〉 series ceramic capacitor:

● 特性 FEATURE:

具有多種溫度級別。適用於作旁路或耦合、低頻損耗和電容量穩定性能要求不高的振頻電路中。

The greater variation of T.C are available for by-passing, low DF and frequency discriminating circuit.

● 使用溫度範圍見EIA代碼表

Operating Temperature Range, please consider EIA code

● 容量範圍 Capacitance Range:

尺寸D _{Max} (mm) Dimension		容量範圍(Capacitance Range) PF				
		Y5P	Y5U	Y5V	Z5U	Z5V
5.0	Test Voltage(U _R =50 V)	100 ~ 1200	470 ~ 1500	2200 ~ 4700	1000 ~ 5000	1000 ~ 5600
6.0		1500 ~ 2200	2200 ~ 4700	5600 ~ 10000	6800 ~ 10000	6800 ~ 10000
7.0		2700 ~ 3300	3600 ~ 6800	8200 ~ 15000		15000 ~ 22000
8.0		3600 ~ 4700	6800 ~ 10000	20000 ~ 22000	15000 ~ 20000	22000 ~ 25000
9.0		5100 ~ 6800	15000	25000	22000	30000 ~ 100000
10.0		7500 ~ 10000	22000	33000	22000 ~ 47000	47000 ~ 200000
12.0			33000	47000	47000 ~ 50000	220000
14.0			47000			
6.0	Test Voltage(U _R =500 V)	100 ~ 680	470 ~ 1000	1000 ~ 1500	1200 ~ 2200	1500 ~ 2200
8.0		820 ~ 1200	1500 ~ 2000	2200 ~ 3300	2400 ~ 4700	3300 ~ 5600
10.0		1500 ~ 2200	2200 ~ 3000	4700 ~ 6800	5100 ~ 7500	6800 ~ 8200
12.0		2200 ~ 4700	3300 ~ 5600	8200 ~ 10000	8200 ~ 10000	10000 ~ 15000
14.0		3300 ~ 6800	6800 ~ 10000	15000		22000
16.0		8200 ~ 10000				

● 工作電壓 operating Voltage: 50 ~ 500V

● 試驗電壓 Test Voltage: 2.5U_R.

● 絕緣電阻 I.R.: Insulation resistance R_i ≥ 4000MΩ.

● 損耗角正切值 tangent of loss angel: Y5P: tg δ ≤ 0.025

Y5U, Z5U: tg δ ≤ 0.030 Y5V, Z5V: tg δ ≤ 0.035

■ CS1 〈半導體介質電容器〉系列瓷介電容器

CS1 〈semiconductor dielectric capacitor〉 series ceramic capacitor

● 特性 FEATURE:

高容量、體積小。適用於絕緣電阻低的阻抗電路中。

High capacitance, small volume. Used in low impedance circuit of requiring low IR.

● 使用溫度範圍: $-30^{\circ}\text{C} \sim +85^{\circ}\text{C}$

Operating Temperature Range: $-30^{\circ}\text{C} \sim +85^{\circ}\text{C}$

● 容量範圍 Capacitance Range:

容量範圍(Capacitance Range) PF							尺寸D (mm) Dimension
Y5P(B)		Y5U(E)		Y5V(F)			
$U_R=25\text{V}$	$U_R=50\text{V}$	$U_R=25\text{V}$	$U_R=50\text{V}$	$U_R=16\text{V}$	$U_R=25\text{V}$	$U_R=50\text{V}$	
103	-----	103	103	103~473	103~223	103~223	4.0
153~223	103~153	223~473	223~333	-----	333~473	473	5.0
333	223	-----	473	104	104	-----	6.0
473~513	-----	104	104	-----	-----	104	7.0
683	333~473	-----	-----	224	-----	-----	8.0
-----	513~683	-----	-----	-----	224	-----	10.0
104	-----	-----	-----	474	-----	-----	11.0

● 試驗電壓 Test Voltage: $1.5U_R$

● 絕緣電阻 I.R.: Insulation resistance $U_R \geq 25\text{V}$, $R_i \geq 1,000\text{M}\Omega$.
 $U_R < 25\text{V}$, $R_i \geq 250\text{M}\Omega$.

● 損耗角正切值 tangent of loss angel: $U_R \geq 25\text{V}$, $\text{tg } \delta \leq 0.05$
 $U_R \geq 25\text{V}$, $\text{tg } \delta \leq 0.075$