

Ceramic Disc Capacitors

Temperature Compensating Series (Class I 50V ~ 1KV)

• Features

- ⊙ Linear temperature coefficient of capacitance.
- ⊙ High stability of capacitance.
- ⊙ Low loss at wide range of frequency.



• Specifications

| Operating Temperature Range 操作溫度範圍 | Class I : -25°C~+85°C |
|---------------------------------------|--|
| Rated Working Voltage (DC) 工作電壓 | 50V, 63V, 100V, 500V, 1KV |
| Capacitance 電容器 | Measured at 25°C, 1MHz, 1Vms.max. |
| Capacitance Tolerance 電容誤差值 | 1p F ~ 9 p F: ± 0.25 p F (C) or ± 0.5 p F (D) 10 p F and above: $\pm 5\%$ (J) or $\pm 10\%$ (K) |
| Insulation Resistance 絕緣電阻值 | 10,000M Ω min. at working voltage, 60 sec. |
| Dissipation Factor (D.F.) 散逸因子 | Measured at 25°C, 1MHz, 1V ms, max. Q=1000min, if C ≥ 30 p F Q $\geq 400+20C$, if C < 30p F (where C= capacitance) |
| Voltage Proof (Flash Test) 電壓防護 | With stand 250% of rated working voltage with 50mA current, 1.5sec. |
| Life Test 壽命測試 | 200% of rated voltage at 85°C for 500 hours. |
| Applicable Standards 適用標準 | EIA RS-198 (CLASS I), JIS C-6422 (TYPE I) |

• How to order

| T (1) | CH (2) | 1H (3) | 101 (4) | J (5) | L (6) | 5 (7) | 1 (8) | 5 (9) | Y (10) |
|----------------------------|---|--|---|--|--|---|--|--|-----------------------------------|
| <u>CLASS I</u> T series | <u>DIELECTRIC</u> CH=NPO LH=N80 PH=N150 RH=N220 UJ=N750 SL=SL | <u>RATED VOLTAGE</u> 1H=50V 1J=63V 2A=100V 2H=500V 3A=1KV | <u>CAPACITANCE</u> 1PF =1R0 1.5PF = 1R5 2.2PF =2R2 100PF=101 120PF=121 10nF=103 100nF= 104 | <u>TOLERANCE</u> C= ± 0.25 PF D= ± 0.5 PF F= $\pm 1\%$ J= $\pm 5\%$ K= $\pm 10\%$ M= $\pm 20\%$ Z=+80 ~ -20% | <u>LEAD SHAPE</u> K=Short kink (Bulk) S=Short Straight (Bulk) L=Long Straight (Bulk) A=Tape/Reel (Long Straight) B=Tape/Box (Long Straight) C=Tape/reel (Long kink) D=Tape/Box (Long kink) | <u>LEAD SPACING</u> 2=2.5 ± 0.8 5=5.0 ± 0.8 6=6.3 ± 0.8 7=7.5 ± 0.8 0=10 ± 0.8 | <u>LEAD LENGTH</u> 3=3.5 ± 1.0 5=5.0 ± 0.8 6=6.3 ± 0.8 0=10 ± 0.8 1= 25mm | <u>LEAD WIRE</u> 5=16V~500V ($\Phi 0.48 \pm 0.05$) 6=1KV ($\Phi 0.5 \pm 0.05$) 8=2KV ($\Phi 0.45 \pm 0.6$) 9=3KV ($\Phi 0.6 \pm 0.05$) | <u>GRADE</u> Y=-25°C ~+85°C |

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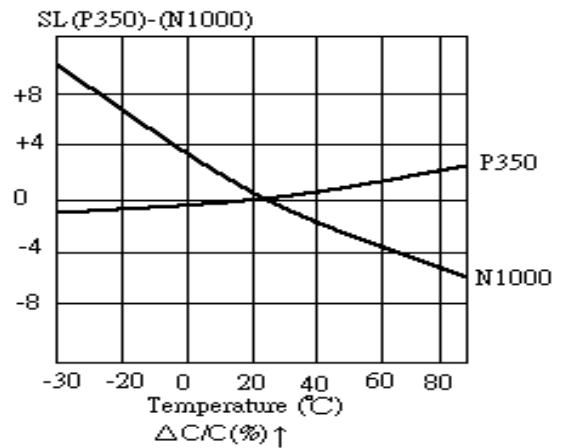
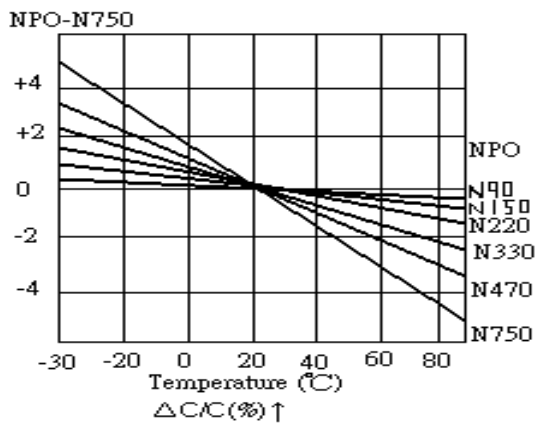
Temperature Compensating Series (Class I 50V ~ 1KV)

• Dimensions & Capacitance range

| Dimensions(mm) 尺寸 | | Capacitance range (p F) of each Temperature 各溫度係數之電容值範圍 | | | | | |
|----------------------|----------|--|-------|---------|-------|---------|----------|
| D | F | NPO | N80 | N150 | N220 | N750 | SL |
| 5 | 2.5or5.0 | 1-50 | 1-24 | 1-39 | 1-24 | 22-50 | 1-180 |
| 6 | 5.0 | 51-82 | 25-39 | 47-56 | 25-39 | 56-82 | 200-220 |
| 7 | 5.0 | 100-120 | 47-56 | 82-100 | 47-56 | 100-120 | 270-330 |
| 8 | 5.0 | 150-180 | 68 | 120-150 | 68 | 150-180 | 390-470 |
| 9 | 5.0 | 220 | 82 | 180-220 | 82 | 220 | 560-680 |
| 10 | 5.0 | 270~330 | 100 | - | 100 | 270 | 820-1000 |

| Dimensions(mm) 尺寸 | | Capacitance range (p F) of each Temperature 各溫度係數之電容值範圍 | | |
|-------------------|----------------------|--|-----------|-----------|
| (D) | (F) ◎ | 500V | 500V | 1 KV |
| Dia. Max. | Lead Spacing | NPO | SL | SL |
| 6.0 | 5.0± 0.8 | 1 ~ 39 | 1 ~ 82 | 47 ~ 68 |
| 7.0 | 5.0± 0.8 | 47 ~ 56 | 90 ~ 161 | 82 ~ 101 |
| 8.0 | 5.0± 0.8 | 65 ~ 82 | | 150 ~ 221 |
| 9.0 | 5.0± 0.8 | 90 ~ 101 | 181 ~ 301 | |
| 10.0 | 5.0± 0.8 | | | 271 |
| 11.0 | 5.0± 0.8 | | | 331 |
| 12.0 | 5.0± 0.8 or 7.5± 0.8 | | | 391 ~ 471 |
| 14.0 | 5.0± 0.8 or 7.5± 0.8 | | | 561 ~ 681 |

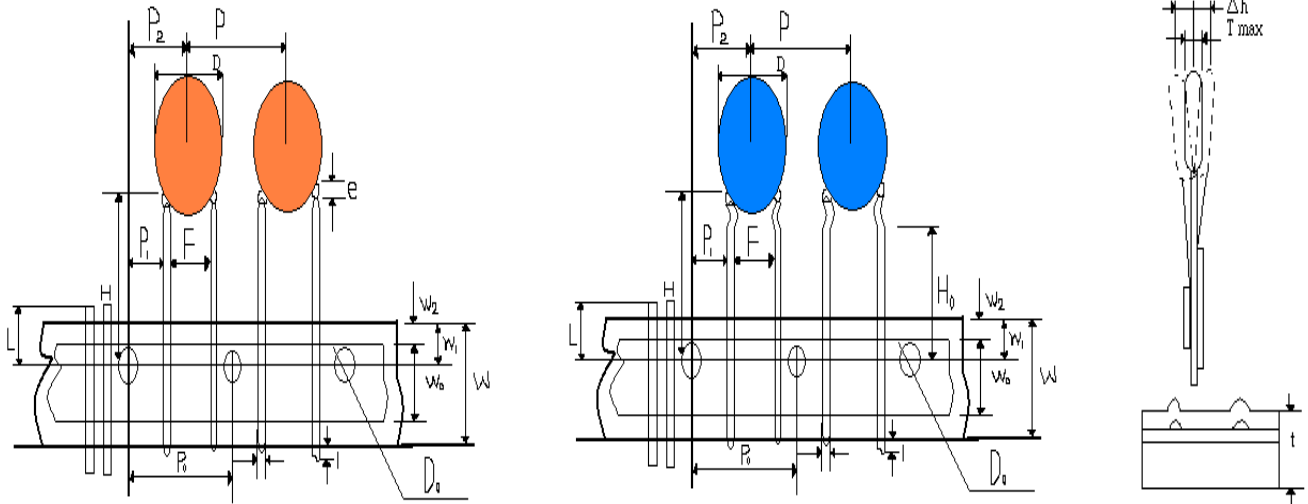
• Temperature characteristic curves



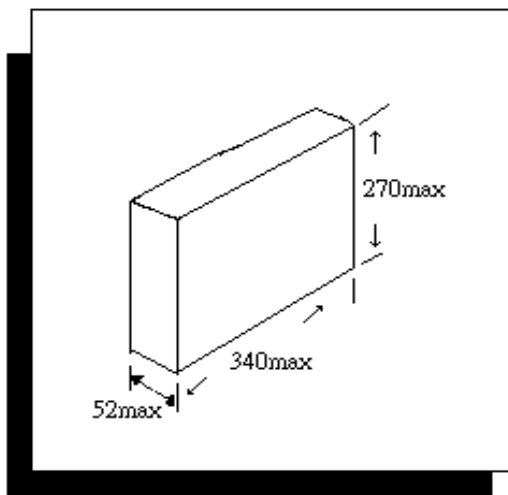
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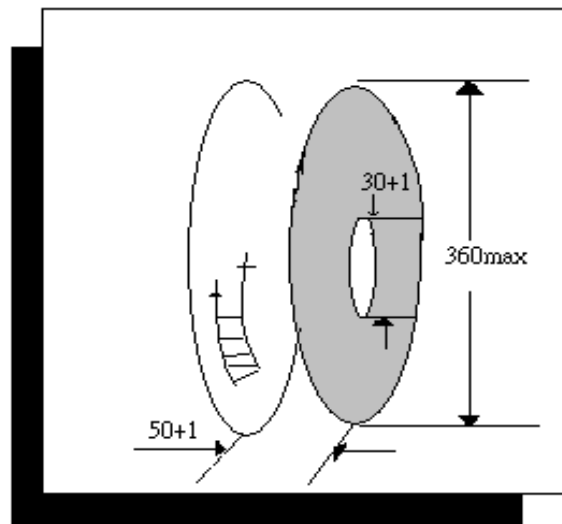
• Taping Specifications



AMMOPACK 編帶盒裝 2000pcs per Box



REEL 編帶捲裝 2000 or 2500 pcs Reel Unit mm



• Taping Specifications

| Item 項目 | Symbol 符號 | Specifications 規格 | | Remarks 備註 |
|--|--------------|-------------------|--------------|--|
| | | Value 尺寸 | Tolerance 誤差 | |
| Body Width 本體直徑 | D | 11.0 | Max. | |
| Body Thickness 本體厚度 | T | 3.5 | Max. | |
| Lead-wire diameter 引線直徑 | d | 0.55 | +0.06-0.05 | |
| Pitch of component 部品間寬距 | P | 12.7 | ±1.0 | |
| Feed hole pitch 進料孔寬距 | P0 | 12.7 | ±0.3 | Cumulative pitch error. 1.0 mm /20 pitch 累積誤差 |
| Feed hole center to lead 進料孔到引線寬 | P1 | 3.85 | ±0.7 | To be measured at bottom 在底部量測 |
| Hole to component center 進料孔到部品寬 | P2 | 6.35 | ±1.3 | |
| Component alignment 部品排列偏度 | h | 0 | ±0.2 | |
| Tape width 紙帶寬度 | W | 18.0 | +1.0-0.5 | |
| Hold-down tape width 膠帶寬度 | W0 | 11.0 | Min. | |
| Hole position 進料孔位置 | W1 | 9.0 | +0.75-0.5 | |
| Hole-down tape position 膠帶位置 | W2 | 3.0 | Max. | |
| Height of component from Tape center 部品與紙帶中心高度 | H | 20.0 | +1.0-0.5 | For Straight Lead Type 直引線型 |
| | H0 | 16.0 | ±0.5 | For Kinked Lead Type 彎引線型 |
| Lead-to-lead distance 引線寬度 | F | 5.0 | ±0.8 | |
| Lead-wire protrusion 引線凸出量 | l | 2.0 | Max. | |
| Feed hole diameter 進料孔直徑 | D0 | 4.0 | ±0.3 | |
| Total tape thickness 總紙帶厚度 | t | 0.7 | ±0.2 | Ground paper 底部厚度： 0.5 ±0.1mm |
| Length of snipped lead 裁切引線長度 | L | 11.0 | Max. | |
| Coating rundown on leads 引線漆長 | e | 1.5 | Max. | |