

CODIGO

CDXXX-XX

DESCRIPCION

Ceramicos Disco

FEATURES

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

1. Class I—Type 'T'

2. Temperature coefficient(Ref. Fig 1)

Code	PPM/°C	T.C.	EIA Code
CH	0±60	NP0	C0H
UJ	-750±120	N750	*U2J
SL	+350~ -1,000	P350~N1000	S2L

3. Rated Voltage(D.C.)

Code	Voltage	Code	Voltage
1C	16V	2A	100V
1E	25V	2H	500V
1H	50V	3A	1KV
1J	63V		

4. Rated capacitance

Code	Cap. (PF)	Code	Cap. (PF)
010	1PF	390	39PF
1P5	1.5PF	470	47PF
2P2	2.2PF	560	56PF
3P3	3.3PF	680	68PF
3P9	3.9PF	820	82PF
4P7	4.7PF	101	100PF
5P6	5.6PF	121	120PF
6P8	6.8PF	151	150PF
8P2	8.2PF	181	180PF
100	10PF	221	220PF
120	12PF	271	270PF
150	15PF	331	330PF
180	18PF	391	390PF
220	22PF	471	470PF
270	27PF	561	560PF
330	33PF	681	680PF

5. Tolerance on rated capacitance.

Code	Tolerance	Rated Cap(PF)
C	±0.25PF	Under 10PF
D	±0.5PF	
J	±5%	From 10PF to 680PF
K	±10%	
M	±20%	

6. Lead Shape. (Ref. Fig. 3.)

Code	Type
K	Bulk
S	
L	
A	Taping
B	

7. Lead Spacing. (F)

Code	Dimension. (mm)		
	K	S	L
2	—	25 ± 0.8	2.5 ± 0.8
5	5.0 ± 0.8	50 ± 0.8	5.0 ± 0.8
6	—	63 ± 0.8	6.3 ± 0.8
7	—	75 ± 0.8	7.5 ± 0.8
0	10.0 ± 0.8	—	10.0 ± 0.8

8. Lead Length. (L)

Code	Dimension (mm)		
	K	S	L
5	5.0 ± 0.8	50 ± 0.8	
6	6.3 ± 0.8	63 ± 0.8	
0	10.0 ± 0.8	10.0 ± 0.8	
1	—	—	25min

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9. Lead Wire. (d)

Code	Dia. (φmm)	Rated Voltage (D.C.)
5	0.5 ± 0.05	16V ~ 500V
6	0.6 ± 0.05	16V ~ 1KV
8	0.8 ± 0.05	1KV ~ 2KV

10. Package.

Code	Package	Q'ty
B	Bulk	1000pcs
A	Ammo Pack	2000pcs
R	Tape & Reel	2500pcs

Fig. 1B SL(P350-N1000)

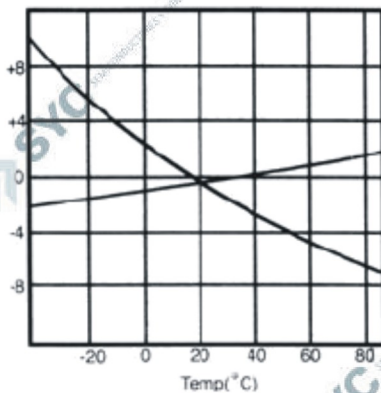
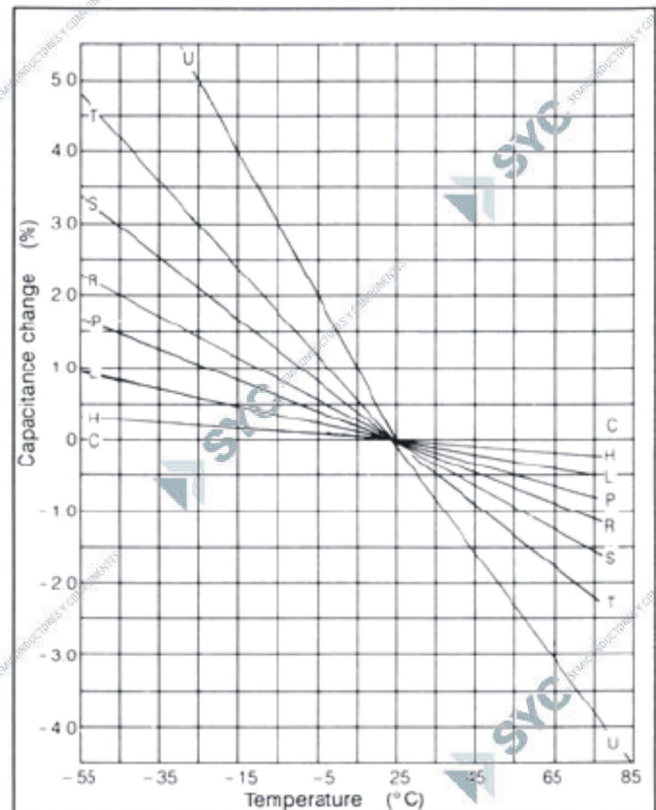


Fig. 1A(T: C. PPM/°C)



Dimension & Capacitance Range

Dimension(mm)				Capacitance Range(PF)						
Dia (D) max.	Lead Spacing(F)			50V			500V		1KV	
	K	S	L	GH	UJ	SL	CH	SL	CH	SL
5.0	5.0±0.8	2.5±0.8	2.5±0.8	1-47	5-50	1-151	1-20	20-101	1-10	20-30
6.0	5.0±0.8	5.0±0.8	5.0±0.8	56-82	56-68	161-221	22-33	121-151	12-27	33-68
7.0	5.0±0.8	5.0±0.8	5.0±0.8	101-121	82-101	241-331	47-68	181-201	30-47	70-101
8.0	5.0±0.8	5.0±0.8	5.0±0.8	131-151	121-151	361-471	82	221-271	56-68	—
9.0	5.0±0.8	5.0±0.8	5.0±0.8	161-201	161-181	501-681	101	301-331	82-101	—
10.0	5.0±0.8	5.0±0.8	5.0±0.8	221-271	201-221	821	121	391-471	—	—
12.0	to	to	to	301-331	—	—	151	—	—	—
14.0	10.0±0.8	10.0±0.8	10.0±0.8	—	—	—	—	—	—	—

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SPECIFICATION & TEST

No. Item	Performance	Test Method
1. Visual & Mechanical	To meet the specification.	The product shall be inspected for visible evidence of defect
2. Marking	To be clear and legible.	Marking shall be tested with acetone
3. Voltage Proof (Between terminal)	No failure	25 times the rated voltage shall be applied for 1 to 5 sec. Charging and discharging current shall be limited to 50 mA max.
4. Insulation resistance	10,000 MΩ min.	Shall be measured 1 minute after with rated voltage
5. Capacitance	To be within the specified tolerance	Test frequency: 1MHz ± 100Hz Test voltage shall not exceed 5Vrms at 25 ± 2°C
6. Q Value	C ≤ 30PF Q = 400 + 20C C > 30PF Q > 1000	Same condition as above (Item 5)
7. Temperature Coefficient	To be within the specification	T.C shall be calculated by the following formula $PPM/°C = \frac{C(t1) - C(t2)}{C(t1)(t2 - t1)} \times 10^6$ C2 = capacitance at t2 C1 = capacitance at t1 t2 = 85 ± 3°C t1 = 25 ± 2°C

Part code designation

Example $\frac{T}{(1)}$ $\frac{CH}{(2)}$ $\frac{1H}{(3)}$ $\frac{120}{(4)}$ $\frac{K}{(5)}$ — $\frac{K}{(6)}$ $\frac{5}{(7)}$ $\frac{5}{(8)}$ $\frac{5}{(9)}$ $\frac{B}{(10)}$

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DESCRIPCION

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FEATURES

- Large capacitance in small size.
- Non linear temperature coefficient of capacitance.

1. Class II—Type 'H'
2. Temperature coefficient(Ref. Fig. 2)

Code	Temp.Range	Cap.Change	EIA Code	Cap.Change
B	-25°C~ +85°C	±10%	Y5P	±10%
E	+10°C~ +85°C	+20% -55%	Z5U	+20% -56%
F		+30% -80%	Z5V	+22% -82%

3. Rated Voltage(D.C.)

Code	Voltage	Code	Voltage
1C	16V	2A	100V
1E	25V	2H	500V
1H	50V	3A	1KV
1J	63V		

4. Rated capacitance.

Code	Cap. (PF)	Code	Cap. (PF)
101	100PF	821	820PF
121	120PF	102	1,000PF
151	150PF	152	1,500PF
181	180PF	222	2,200PF
221	220PF	332	3,300PF
271	270PF	472	4,700PF
331	330PF	682	6,800PF
391	390PF	103	10,000PF
471	470PF	223	22,000PF
561	560PF	473	47,000PF
681	680PF	104	100,000PF

5. Tolerance on rated capacitance.

Code	Tol.	16V-1KV
K	± 10%	B
M	± 20%	D, E
Z	+ 80% - 20%	E, F

6. Lead Shape. (Ref. Fig. 3.)

Code	Type
K	Bulk
S	
L	
A	Taping
B	

7. Lead Spacing. (F)

Code	Dimension (mm)		
	K	S	L
2	—	2.5 ± 0.8	2.5 ± 0.8
5	5.0 ± 0.8	5.0 ± 0.8	5.0 ± 0.8
6	—	6.3 ± 0.8	6.3 ± 0.8
7	—	7.5 ± 0.8	7.5 ± 0.8
0	10.0 ± 0.8	—	10.0 ± 0.8

8. Lead Length. (L)

Code	Dimension (mm)		
	K	S	L
5	5.0 ± 0.8	5.0 ± 0.8	
6	6.3 ± 0.8	6.3 ± 0.8	
0	10.0 ± 0.8	10.0 ± 0.8	
1	—	—	25min

9. Lead Wire. (d)

Code	Dia. (φmm)	Rated Voltage (D.C.)
5	0.5 ± 0.05	16V-500V
6	0.6 ± 0.05	16V-1KV
8	0.8 ± 0.05	1KV-2KV

10. Package

Code	PACKAGE	Q'ty *
B	Bulk	1000pcs
A	Ammo Pack	2000pcs
R	Tape Reel	2500pcs

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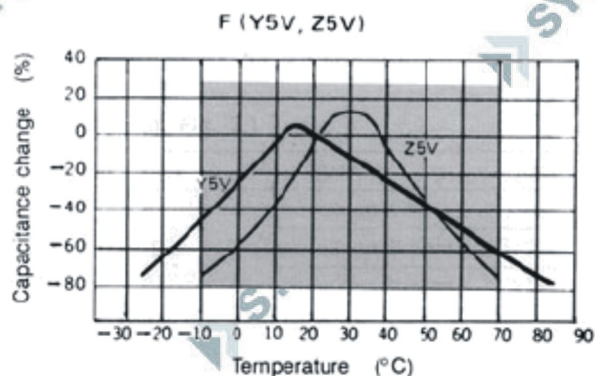
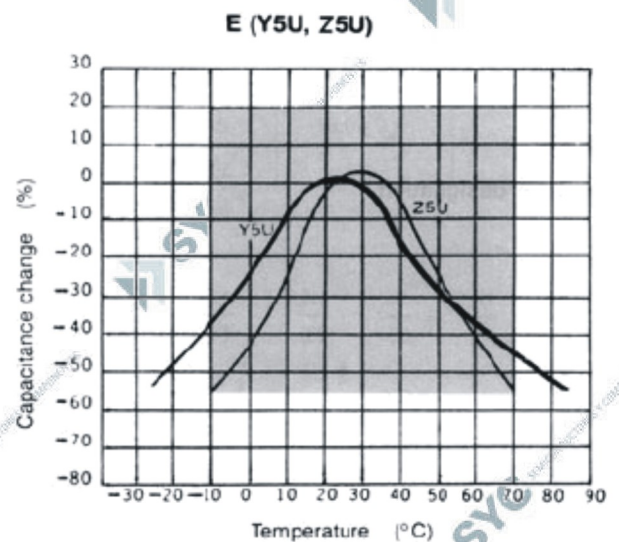
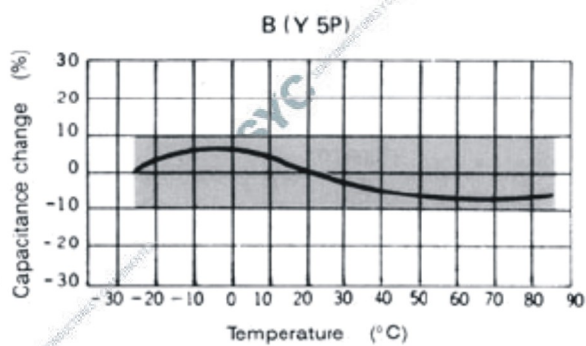
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Dimension & Capacitance Range

Dimension(mm)				Capacitance Range(PF)								
Dia. (D) max.	Lead Spacing(F)			50V			500V			1KV		
	K	S	L	B	E	F	B	E	F	B	E	F
5.0	5.0±0.8	2.5±0.8	2.5±0.8	151~222	102~502	102~103	151~561	202~222	202~332	101~471	—	—
6.0	5.0±0.8	5.0±0.8	5.0±0.8	272~332	682~822	153~223	681~102	272~392	472~502	561~102	102	102
7.0	5.0±0.8	5.0±0.8	5.0±0.8	342~392	103	—	152~202	—	682~822	—	152~222	152~222
8.0	5.0±0.8	5.0±0.8	5.0±0.8	472~562	—	—	222~302	472~502	822~103	122~152	332	272~472
9.0	5.0±0.8	5.0±0.8	5.0±0.8	682~822	—	—	332	—	—	202~222	392	502~682
10.0	5.0±0.8	5.0±0.8	5.0±0.8	103	203~223	—	392~472	103	—	272~332	472	822~103
12.0	to	to	to	—	—	—	—	—	223	—	103	153
14.0	10.0±0.8	10.0±0.8	10.0±0.8	—	—	—	103	223	333	472	153	223
16.0	—	—	—	—	—	—	—	—	473	—	223	333

Fig. 2 (T.C. %)



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SPECIFICATION & TEST

No. Item	Performance	Test Method
1. Visual & Mechanical	To meet the specification.	The product shall be inspected for visible evidence of defect.
2. Marking	To be clear and legible.	Marking shall be tested with acetone.
3. Voltage Proof (Between terminal)	No failure	2.5 times the rated voltage shall be applied for 1 to 5 sec. Charging and discharging current shall be limited to 50 mA max.
4. Insulation resistance	10.000 MΩ or 2000F whichever is less.	Shall be measured 1 minute after with rated voltage.
5. Capacitance	To be within the specified tolerance.	Test frequency: 1KHz ± 100Hz Test voltage shall not exceed 3Vrms at 25 ± 2°C
6. Dissipation Factor (Tan δ) (%)	Characteristic B, E: 2.5% max. F: 5% max.	Same condition as above (Item 5)
7. Temperature Coefficient	To be within the specification.	T.C. shall be calculated by the following formula: $C.C. (%) = \frac{C_{tx} - C_{t1}}{C_{t1}} \times 100$ Ctx: capacitance at any temperature between -25°C and +85°C Ct1: capacitance at 25 ± 2°C

Part code designation

Example $\frac{H}{(1)}$ $\frac{B}{(2)}$ $\frac{1H}{(3)}$ $\frac{120}{(4)}$ $\frac{K}{(5)}$ — $\frac{K}{(6)}$ $\frac{5}{(7)}$ $\frac{5}{(8)}$ $\frac{5}{(9)}$ $\frac{A}{(10)}$

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FEATURES

- Linear temperature characteristic of capacitance.
- Stable capacitance change over the specified temperature.
- Low loss at wide range of frequency.
- Ultra large capacitance in small size.

1. Class III—Type 'S'

2. Temperature coefficient(Ref. Fig 2)

Code	Temp. Range	Cap. Change	EIA Code
B	-25°C +85°C	±10%	Y5P
E		+22% -33%	Y5T
		+22% -56%	Y5U
		+30% -80%	Y5V
F			

3. Rated Voltage (D.C.)

Code	Voltage
1C	16V
1E	25V
1H	50V

4. Rated capacitance.

Code	Cap. (PF)
103	10,000PF
223	22,000PF
473	47,000PF
104	100,000PF
224	220,000PF

5. Tolerance on rated capacitance.

Code	Tol.	16V—50V
K	±10%	B (Y5P)
M	±20%	E(Y5T, Y5U)
Z	+80% -20%	F (Y5V)

6. Lead Shape. (Ref. Fig. 3.)

Code	Type
K	Bulk
S	
L	
A	Taping
B	

7. Lead Spacing. (F)

Code	Dimension (mm)		
	K	S	L
2	—	2.5±0.8	2.5±0.8
5	5.0±0.8	5.0±0.8	5.0±0.8
6	—	6.3±0.8	6.3±0.8
7	—	7.5±0.8	7.5±0.8
0	10.0±0.8	—	10.0±0.8

8. Lead Length. (L)

Code	Dimension (mm)		
	K	S	L
5	5.0±0.8	5.0±0.8	
6	6.3±0.8	6.3±0.8	
0	10.0±0.8	10.0±0.8	
1	—	—	25min

9. Lead Wire. (d)

Code	Dia. (φmm)	Rated Voltage (D.C.)
5	0.5±0.05	16V-50V
6	0.6±0.05	16V-50V

10. Package

Code	Package	Q'ty
B	Bulk	1000pcs
A	Ammo Pack	2000pcs
R	Tape Reel	2500pcs

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Dimension & Capacitance Range

Dimension(mm)				Capacitance Range(PF)								
Dia. (D) max	Lead Spacing(F)			16V			25V			50V		
	K	S	L	B	E	F	B	E	F	B	E	F
5	5.0±0.8	2.5±0.8	2.5±0.8	—	473	103~473	103	103~223	103~104	103	103~223	103~223
6	5.0±0.8	5.0±0.8	5.0±0.8	—	—	104	—	473	104	—	—	333~473
7	5.0±0.8	5.0±0.8	5.0±0.8	—	104	—	223	104	—	—	473	104
8	5.0±0.8	5.0±0.8	5.0±0.8	—	—	—	333	—	—	223	104	—
10	5.0±0.8	5.0±0.8	5.0±0.8	—	224	224	473	—	224	333	—	—
11	to	to	to	—	—	—	—	—	—	—	—	—
12	6.3±0.8	6.3±0.8	6.3±0.8	—	—	—	104	—	—	473	—	—

SPECIFICATION & TEST

No.	Item	Performance	Test Method
1.	Visual & Mechanical	To meet the specification.	The product shall be inspected for visible evidence of defect.
2.	Marking	To be clear and legible.	Marking shall be tested with acetone
3.	Voltage Proof (Between terminal)	No failure	Capacitor shall withstand for not greater than 5 second, a D.C. test voltage of 2.5 times rated voltage. Charging current shall be 10mA max.
4.	Insulation resistance	12V/16V – 100MΩ. 25V/50V – 1000MΩ	Shall be measured 1 minute after with 10 ± 1V
5.	Capacitance	To be within the specified tolerance	Test frequency: 1KHz ± 100Hz. Test voltage shall not exceed 1Vrms at 25 ± 2°C
6.	Dissipation Factor (Tan δ) (%)	Characteristic B, E: 2.5% max. F: 5% max.	Same condition as above (Item 5).

Part code designation

Example: $\frac{S}{(1)}$ $\frac{D}{(2)}$ $\frac{1C}{(3)}$ $\frac{104}{(4)}$ $\frac{K}{(5)}$ — $\frac{K}{(6)}$ $\frac{5}{(7)}$ $\frac{5}{(8)}$ $\frac{5}{(9)}$ $\frac{R}{(10)}$