

## Data Sheet

Customer: \_\_\_\_\_

Product: High Voltage Ceramic Disc Capacitor \_\_\_\_\_

Type : K \_\_\_\_\_

Issued Date : 15-Dec-2023 \_\_\_\_\_

Edition: Ver. 6 \_\_\_\_\_

### Record of change

Date	Ver.	Description	Page
30-Dec.-2016	1		
01-Feb.-2023	2	Revised Part No.	
01-March-2023	3	Add Lead Shape (Vertical crimped)	2,4
07-April-2023	4	Add Rated Voltage (D.C.) 3.15KV > 3K1	2
29-May-2023	5	Add Rated Voltage 1KV Dia. & spec.	2,3
15-Dec-2023	6	Add Temperature Coefficient & Revise Capacitance size max.	3,4

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Prepared by	Checked by	Approved by	Accepted by (customer)
15-Dec-2023	15-Dec-2023	15-Dec-2023	
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## SPECIFICATION

- Operating temperature range: -25°C~+85°C
- Rated working voltage: 1KV to 15KV
- Capacitance: Within tolerance for Class I at 1MHz / Class II at 1 KHz, 1 to 3Vrms, 25°C
- Test voltage: 1KV : 2.5 times , 2KV & above: 2 times rated voltage , 3 ~ 5KV: 1.75 times, 6 ~ 15KV: 1.5 times. 50mA max charging current for 1 ~ 5 seconds.
- Dissipation factor/Q factor:
 

Class I: 1MHz, 1 TO 3Vrms, 25°C	Class II: 1KHz, 1 TO 3Vrms, 25°C
C≤30PF..... Q≥400+20C	Y5P, Z5U, Y5U ..... 2.5% Max
C>30PF..... Q≥ 1,000	Z5V, Y5V ..... 5% Max
- Insulation Resistance: 10,000 MΩ or 200 MΩ.μF, whichever is smaller.
- Humidity test: Per EIA RS198-C, Method B3, Condition B. ΔC/C: 30% Max for Z5V, 20% Max for others.
- Life test: Per EIA RS198-C, Method C2, Condition C at 85±2°C and 200% rated working voltage.  
ΔC/C: 30% Max for Z5V, 20% Max for others.. DF: 5% max for Z5V, 3% Max for others. I.R.: 10,000 MΩ Min.

## Part No. Designation

Example	K	P	2K0	221	K	-	L	5	1	6	B	D	7
	(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)	(11)	(12)

### 1. High Voltage—Type 'K'

### 2. Temperature Coefficient (Ref. Fig 1 & 2)

CLASS I : S (SL)

CLASS II : P (Y5P), Z (Z5U), V (Z5V), U(Y5U), Y(Y5V)

### 3. Rated Voltage (D.C.)

Code	Voltage	Code	Voltage
1K0	1000V	6K0	6000V
2K0	2000V	6K3	6300V
3K0	3000V	8K0	8000V
3K1	3150V	10K	10000V
4K0	4000V	15K	15000V
5K0	5000V		

### 4. Rated Capacitance

10PF ~ 33000PF in E-24 Series Coded by Two

Significant digits + No. of Zero

### 5. Tolerance On Rated Capacitance

Code	Tolerance	Rated T.C.
J	±5%	SL
K	±10%	P
M	±20%	P, Z, Y, U
Z	+80-20%	Z, V, Y, U

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

Code	Type	
K	Bulk	Short Kink
S		Short Straight
L		Long Straight
V		Vertical Crimped
A	Taping	Inside kink
B		Straight
V		Vertical Crimped

### 7. Lead Spacing. (F)

Code	Dimension. (mm)		
	K	S	L
5	5.0 ± 0.8		
6	6.35 ± 0.8		
7	7.5 ± 0.8		
0	9.5 ± 0.8		

### 8. Lead Length. (L)

Code	Dimension (mm)		
	K	S	L
5	5.0 ± 0.8	5.0 ± 0.8	
6	6.0 ± 0.8	6.0 ± 0.8	
0	10.0 ± 0.8	10.0 ± 0.8	
1	---	---	25min

### 9. Lead Wire. (d)

Code	Dia (ψmm)	Rated Voltage (D.C.)
6	0.6 ± 0.05	1KV~ 8KV
8	0.8 ± 0.05	6KV~ 15KV

### 10. Package

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

### 11. Extra Diameter Code : D

### 12. Diameter in mm

Code	Dia (∅ mm)
9	9
24	24

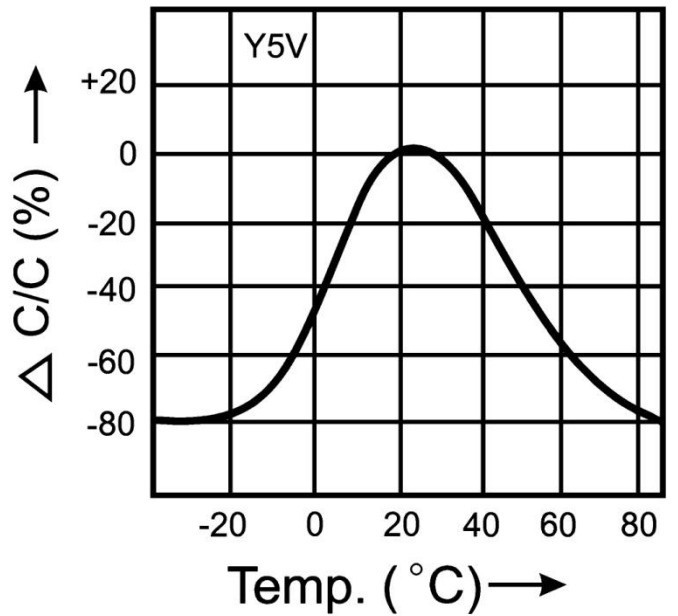
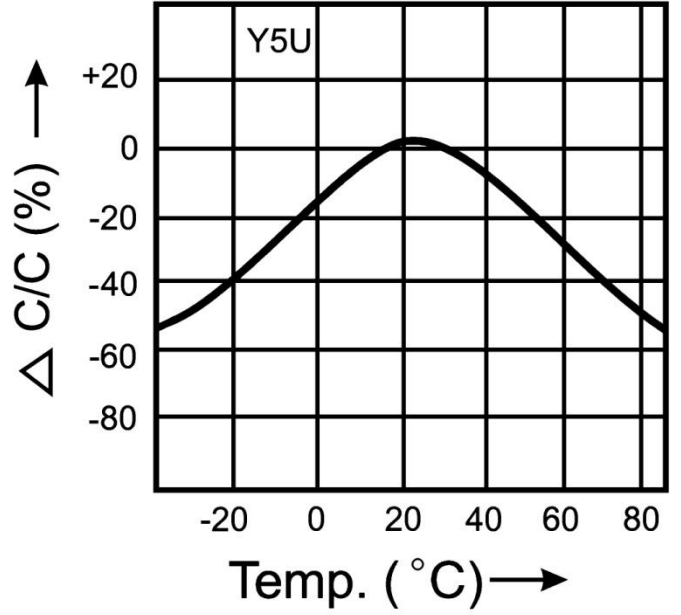
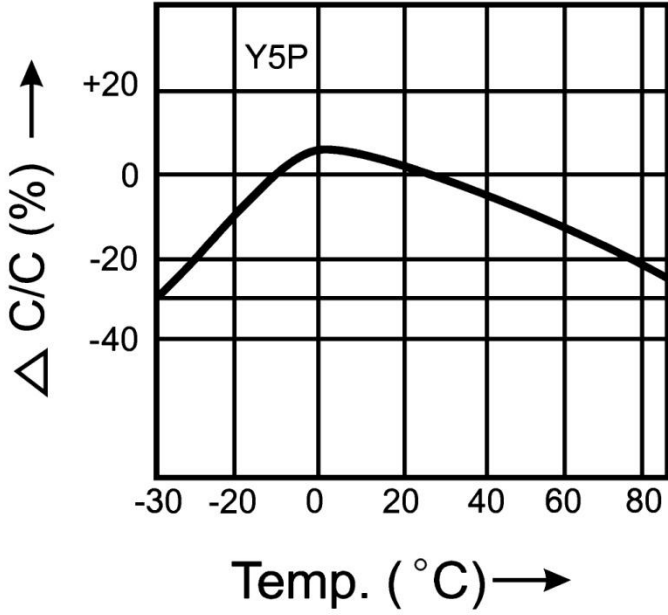
## HIGH VOLTAGE CERAMIC CAPACITORS 1KV-15KV

RATED VOLTAGE (DC)	Temperature Characteristic / Capacitance ( pF )					Size max
	N (CH)	S(SL)	P (Y5P)	Z (Z5U/Y5U)	V (Z5V/Y5V)	Dia (Ø mm )
1KV		10-22	100 – 560	1000 – 1200	1000 – 2200	6
		33-68	680 – 1000	1500 – 2200		7
		100-150		3300	3300	8
		220	1500-2200		4700	9
				4700	10000	10
		330	3300	10000		12
			4700			13
		470			22000	14
				22000	30000-33000	16
			10000			17
				10000	27	
2KV		10 – 68	100 – 470	1000	1000	7
		82	560 – 1000		1500 – 2200	8
		100		2200	3000 – 4700	9
		150	1500-2200	3300	5600	11
		220	3300	4700	10000	12
		330		5600-6800		14
		470	4700	10000	20000-22000	16
			5600	15000	33000	18
			6800	20000 – 22000		21
			10000			24
3KV		10-47	100-330		1000	7
		56-68	470-560	1000	1500	8
		82-100	680-1000	1500	2200	9
		120		2200	3300	10
		150	1500	3300	4700	11
		180			6800	12
		220	2200	4700-5600	8200	14
		330	3300	6800	10000	16
		390-470	4700	10000	15000	18
					20000-22000	20
					33000	24

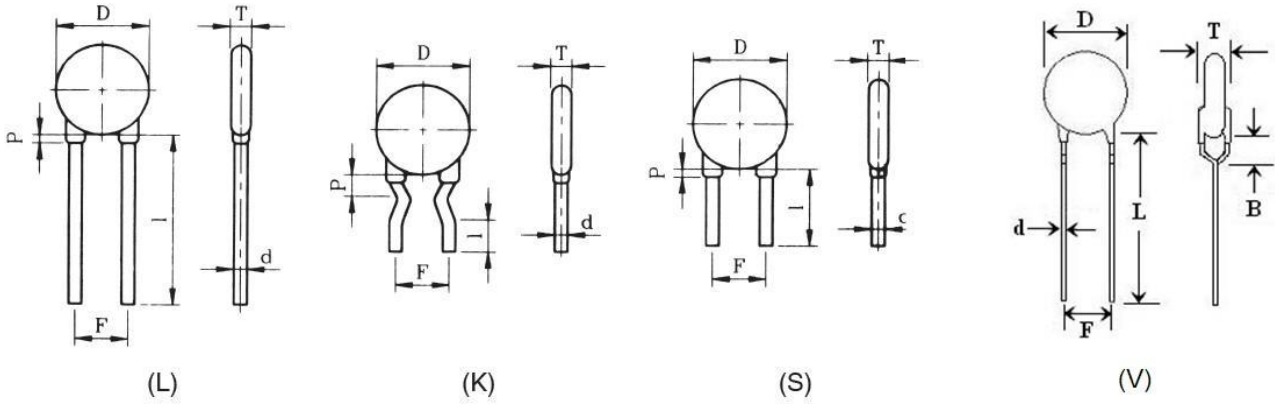
\*\*For voltage higher than 3KV, please contact us for separate data sheet with the diameter of disc capacitors.

\*\*All product specifications are subject to change without notice. Please confirm before you order.

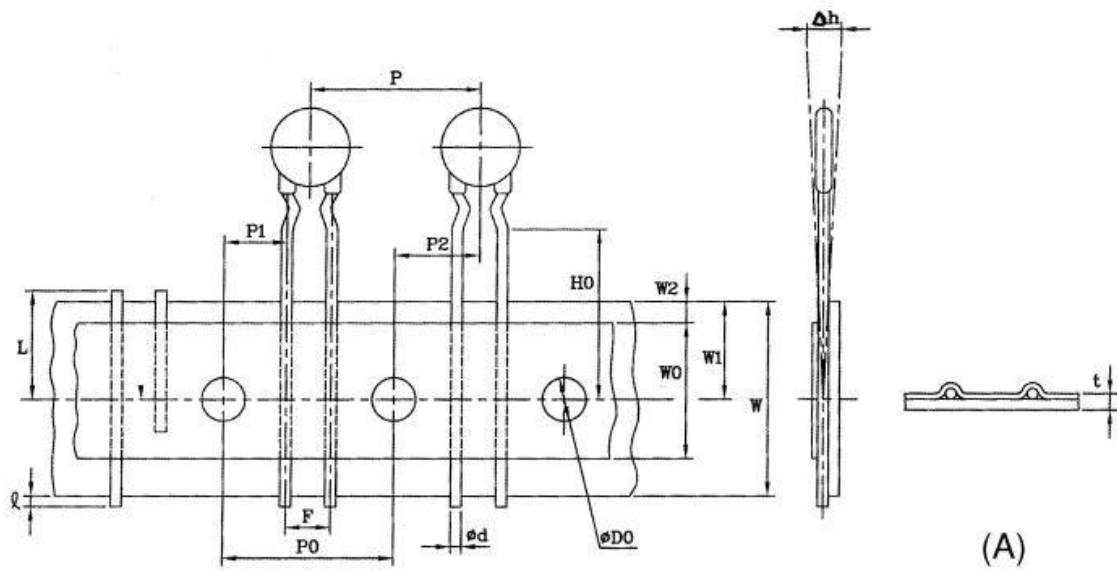
**13. Temperature Coefficient**

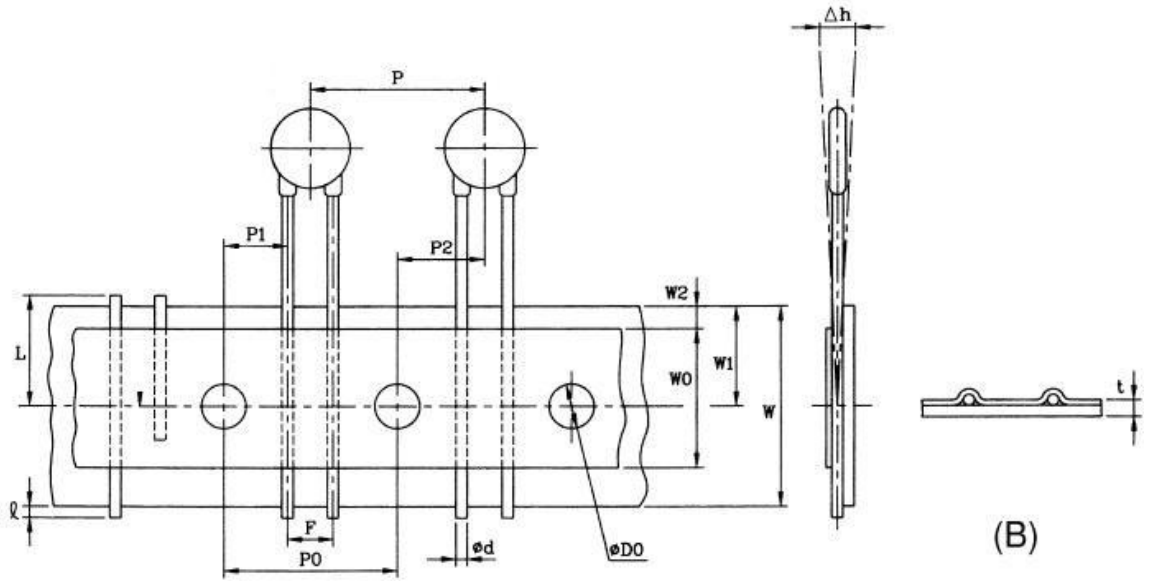


**Lead Shape (Fig. 3)**



**Taping Specification**





Symbol	P	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	∅d	F	∆h	W	W <sub>0</sub>	W <sub>1</sub>	W <sub>2</sub>	D <sub>0</sub>	t	L	H	H <sub>0</sub>
Dimension	12.7	12.7	3.85	6.35	0.6	5.08 6.35 7.62	0	18	12.5	9	3	4	0.7	11	20.0 23.0	16.0 18.0
Tolerance	±1.0	±0.3	±0.7	±1.0	±0.05	+0.8 -0.2	±2	±0.5	Min	+0.75 -0.5	Max	±0.3	±0.2	Max	+1.5 -1.0	±0.5