

Disc Type Capacitors with Lead

High Voltage Ceramic Capacitors

Commercial Grade, Low dissipation at high frequency

CC45 series

Type: CC45 [SL characteristics, Edc: 1kV to 6kV]





REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

⚠ REMINDERS
On not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
 Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and product temperature does not exceed 150°C.
 Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
On not use for a purpose outside of the contents regulated in the delivery specifications.
The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement

equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.

- (1) Aerospace/Aviation equipment
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications
- Please refer to the guideline of notabilia for fixed ceramic capacitors issued by JEITA(Japan Electronics and Information Technology Association, EIAJ RCR-2335).

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.



Disc Type Capacitors with Lead

Product compatible with RoHS directive Halogen-free

High Voltage Ceramic Capacitors, Commercial Grade, Low dissipation at high frequency

Overview of CC45 Series

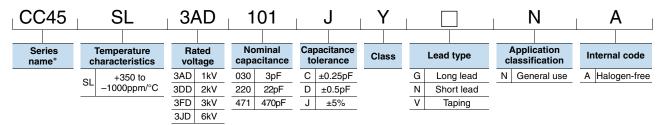
FEATURES

- O Low dissipation factor, and decreased self-heating temperature in the high frequency, and high voltage application.
- The rated voltage of 6kV series have been added the rated voltage of 3kV series.
- These products shall conform to RoHS Directive due to lead(Pb) free of lead wire and internal solder material.
- Ocompatible with halogen-free external resin coating.

APPLICATION

For use in snubber circuit protection for power supplies

■ PART NUMBER CONSTRUCTION



^{*} Please refer to P-5~8 about the product dimensions

OPERATING TEMPERATURE RANGE

Temperature	Temperature range*				
characteristics	Operating temperature	Storage temperature**			
	(°C)	(°C)			
SL	-25 to +125	-25 to +125			

^{*} The maximum operating temperature of 125°C includes capacitor self-generated heat of up to 20°C.

■PACKAGE QUANTITY

T	Package quantity				
Туре	Taping (pieces / box)	Bulk (pieces / bag)			
CC45	1000	1000			

^{**} After capacitor is mounted on board, the storage temperature range is applied.

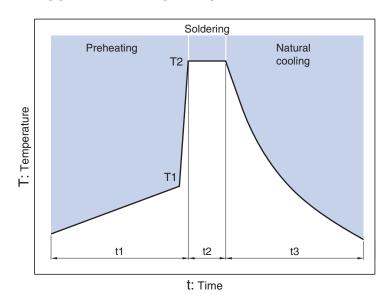
RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. http://product.tdk.com/en/environment/rohs/

Halogen-free: Indicates that CI content is less than 900ppm, Br content is less than 900ppm, and that the total CI and Br content is less than 1500ppm.



Overview of CC45 Series

■ RECOMMENDED FLOW PROFILE



Preheating		Peak		Natural cooling
Temp.	Time	Temp.	Time	Time
T1	t1	T2	t2	t3
110°C min.	30 to 60s.	260°C	Within 10s.	Over 60s.



CAPACITANCE AND DIMENSIONS

☐Temperature Characteristics: SL (+350 to -1000ppm/°C)

□Rated Voltage Edc: 1kV

Capacitance	Capacitance	Dimensi	ons (mm)			- Taping		
(pF)	tolerance	D max.	T max.	F	F	d	dimensions***	Part No.*
(pi)	tolerance	D IIIax.	i iliax.	(Applied to bulk)	(Applied to taping)	u	uniterisions	
10	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD100JY NA**
12	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD120JY□NA
15	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6 ± 0.05	V1	CC45SL3AD150JY⊡NA
18	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD180JY□NA
22	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD220JY□NA
27	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD270JY□NA
33	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD330JY□NA
39	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD390JY□NA
47	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD470JY□NA
56	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD560JY□NA
68	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD680JY□NA
82	±5%	6.0	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD820JY□NA
100	±5%	6.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD101JY□NA
120	±5%	7.0	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD121JY□NA
150	±5%	7.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD151JY□NA
180	±5%	8.0	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD181JY□NA
220	±5%	8.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD221JY□NA
270	±5%	9.0	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD271JY□NA
330	±5%	10.0	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD331JY□NA
390	±5%	10.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3AD391JY□NA
470	±5%	11.5	5.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3AD471JY□NA

^{*} The part numbers are TDK's standard specification products.

LIST OF STANDARD LEAD SHAPES

Dimemsions in mm Symbol G Symbol N Symbol V Bulk/Long lead Bulk/Short lead Taping Vertical kink

• TDK's standard product is vertical kink.

• TDK's recommendation is short lead type with the symbol N for bulk products.

Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

^{**} The " \square " of the Part Number contains the lead type, G, N or V. Please refer to the details of each shape is shown below. *** Please refer to P-9 about the taping dimensions.



■ CAPACITANCE AND DIMENSIONS

☐Temperature Characteristics: SL (+350 to -1000ppm/°C)

□Rated Voltage Edc: 2kV

Capacitance	Capacitance	Dimensi	ons (mm)			- Taping		
(pF)	tolerance	D max.	T max.	F	F	d	dimensions***	Part No.*
(pi)	tolerance	D IIIax.	i illax.	(Applied to bulk)	(Applied to taping)	u	unnensions	
10	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD100JY□NA**
12	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD120JY□NA
15	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD150JY□NA
18	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD180JY□NA
22	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD220JY□NA
27	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD270JY□NA
33	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD330JY□NA
39	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD390JY□NA
47	±5%	5.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD470JY□NA
56	±5%	6.0	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD560JY□NA
68	±5%	6.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD680JY□NA
82	±5%	7.0	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD820JY□NA
100	±5%	7.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD101JY□NA
120	±5%	8.0	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD121JY□NA
150	±5%	8.5	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD151JY□NA
180	±5%	9.0	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD181JY□NA
220	±5%	10.0	5.0	5.0±1.5	5.0+0.8, -0.2	0.6±0.05	V1	CC45SL3DD221JY□NA
270	±5%	11.0	5.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3DD271JY□NA
330	±5%	11.5	5.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3DD331JY□NA
390	±5%	12.5	5.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3DD391JY□NA

^{*} The part numbers are TDK's standard specification products.

LIST OF STANDARD LEAD SHAPES

Symbol G
Bulk/Long lead

Symbol N
Bulk/Short lead

Taping

Vertical kink

Vertical kink

• TDK's standard product is vertical kink.

• TDK's recommendation is short lead type with the symbol N for bulk products.

Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

^{**} The " \square " of the Part Number contains the lead type, G, N or V. Please refer to the details of each shape is shown below.

^{***} Please refer to P-9 about the taping dimemsions.



CAPACITANCE AND DIMENSIONS

☐Temperature Characteristics: SL (+350 to -1000ppm/°C)

□Rated Voltage Edc: 3kV

Capacitance	Capacitance	Dimensi	ons (mm)			Taping		
(pF)	tolerance	D max.	T max.	F	F	d	dimensions***	Part No.*
				(Applied to bulk)	(Applied to taping)			
10	±5%	5.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD100JY ☐ NA**
12	±5%	5.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD120JY□NA
15	±5%	5.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD150JY□NA
18	±5%	5.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD180JY□NA
22	±5%	5.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD220JY□NA
27	±5%	5.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD270JY□NA
33	±5%	6.0	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD330JY□NA
39	±5%	6.0	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD390JY□NA
47	±5%	6.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD470JY□NA
56	±5%	7.0	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD560JY□NA
68	±5%	7.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD680JY□NA
82	±5%	8.0	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD820JY□NA
100	±5%	8.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD101JY□NA
120	±5%	9.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD121JY□NA
150	±5%	10.0	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD151JY□NA
180	±5%	11.0	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD181JY□NA
220	±5%	12.0	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3FD221JY□NA

^{*} The part numbers are TDK's standard specification products.

*** Please refer to P-9 about the taping dimemsions.

LIST OF STANDARD LEAD SHAPES

Symbol G
Bulk/Long lead

Symbol N
Bulk/Short lead

Taping

Vertical kink

Dimensions in mm

• TDK's standard product is vertical kink.

• TDK's recommendation is short lead type with the symbol N for bulk products.

^{**} The " \square " of the Part Number contains the lead type, G, N or V. Please refer to the details of each shape is shown below.



CAPACITANCE AND DIMENSIONS

☐Temperature Characteristics: SL (+350 to -1000ppm/°C)

□Rated Voltage Edc: 6kV

Capacitance	apacitance Capacitance Dimensions (mm)							
(pF)	tolerance	D max.	T max.	F (Applied to bulk)	F (Applied to taping)	d	Taping dimensions***	Part No.*
3	±0.25pF	7.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD030CY□NA**
5	±0.5pF	7.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD050DY□NA
8	±0.5pF	7.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD080DY□NA
10	±5%	7.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD100JY□NA
12	±5%	7.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD120JY□NA
15	±5%	7.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD150JY□NA
18	±5%	7.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD180JY□NA
22	±5%	7.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD220JY□NA
27	±5%	7.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD270JY□NA
33	±5%	7.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD330JY□NA
39	±5%	8.0	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD390JY□NA
47	±5%	8.5	6.0	7.5±1.5	7.5±0.8	0.6±0.05	V2	CC45SL3JD470JY□NA

^{*} The part numbers are TDK's standard specification products.

LIST OF STANDARD LEAD SHAPES

Symbol G
Bulk/Long lead

Symbol N
Bulk/Short lead

Taping

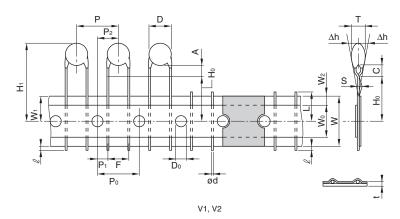
Vertical kink

- TDK's standard product is vertical kink.
- TDK's recommendation is short lead type with the symbol N for bulk products.

^{**} The " \square " of the Part Number contains the lead type, G, N or V. Please refer to the details of each shape is shown below.

^{***} Please refer to P-9 about the taping dimemsions.

TAPING DIMEMSIONS



Item	Symbol	Dimensions(mm)		Remarks	
item	Syllibol	V1	V2	- nemarks	
Body diameter	D	Depends on the spec	ification of each product.		
Body thickness	Т	Depends on the spec	ification of each product.		
Lead-wire diameter	ød	0.6±0.05	0.6±0.05		
Pitch of component	Р	12.7±1.0	15.0±1.0	Including the slant of body	
Feed hole pitch	Po	12.7±0.3	15.0±0.3	Excepting the tape splicing part	
Feed hole center to lead	P1	3.85±0.7	3.75±0.7		
Feed hole center to component center	P ₂	6.35±1.3	7.5±1.3		
Lead-to lead distance	F	5+0.8, -0.2	7.5±0.8	Measuring point is bottom kink	
Component alignment	Δh	0±2.0	0±2.0	Including the slanting body due to bending lead-wire	
Tape width	W	18.0+1.0, -0.5	18.0+1.0, -0.5		
Adhesive tape width	Wo	10.0min.	10.0min.		
Hole position	W ₁	9.0±0.5	9.0±0.5		
Adhesive tape position	W2	4.0max.	4.0max.	Adhesive tape do not stick out the tape	
Bottom of kink from tape center	Ho	16.0+1.5, -0.5	16.0+1.5, -0.5		
Height of body from tape center	H ₁	46.0max.	46.0max.		
Lead-wire protrusion	l	1.0max.	1.0max.		
Feed hole diameter	D ₀	4.0±0.2	4.0±0.2		
Total tape thickness	t	0.6±0.3	0.6±0.3	Including adhesive tape	
Length of snipped lead	L	11.0max.	11.0max.		
Coating on lead	С	4.0max.	4.0max.		
Height of kink	Α	4.0max.	4.0max.	Measuring point is bottom kink	
Spring action	S	2.0max.	2.0max.		

■ AMMO PACK INNER BOX SIZE



Dimensions in mm

 $[\]bullet$ For more information about products with other capacitance or other data, please contact us.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Ceramic Disc Capacitors category:

Click to view products by TDK manufacturer:

Other Similar products are found below:

 009377XM
 5AS560JCFCA
 5AU100JCECA
 5AU470JCJCA
 DEF2CLH020CA3B
 HSE102MAQBF0KR
 432202101621
 432202282431

 DEF2CLH030CJ3B
 W1X223MCVCF0KR
 564RC0GBA302EJ470K
 5AS270JCDCA
 5AS330JCDCA
 5AU330JCGCA

 DE1E3KX222MJ4BN01F
 440LT68AP-R
 JN222MQ47FAAAAKPLP
 H8000090-245
 H8000090-225RY
 H8000090-309RY
 H8000090

 291RY
 F471K39S3NR63K7R
 DEF2CLH040CN3A
 DEF2CLH080DA3B
 564R3DF0T22
 CC2150KY5P1KVB5LS-LF

 CC2180KY5P1KVB5LS-LF
 CC2470KY5P1KVB5LS-LF
 CC2820KY5P1KVB5LS-LF
 0838-040-X7R0-220K
 JN102MQ35FAAAAKPLP

 0841-040-X5U0-103M
 CCH-6K8-5/1000V
 140-50N2-101J-TB-RC
 ECK-DGL102ME
 562R5GAD47RR
 S103K75Y5PN8BT0R

 615R100GAD10
 615R150GAD10
 NCD100K1KVSLF
 NCD682M1KVZ5UF
 CCK-100N
 CCK-100P
 CCK-2N2
 CCK-47N
 CCK-47N