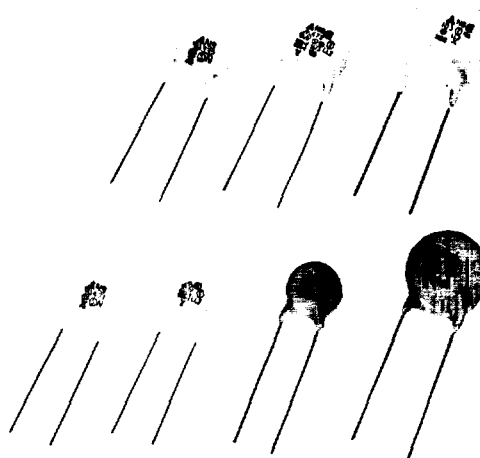


# Ceramic Disc Capacitors

## Type NS

### Features

Type NS is recognized by UL, CSA, BSI, SEMKO, SEV and VDE. These capacitors are used to antennacoupling, line-by-pass and across-the-line, for industrial power supply, radio and TV appliance and similar equipment.

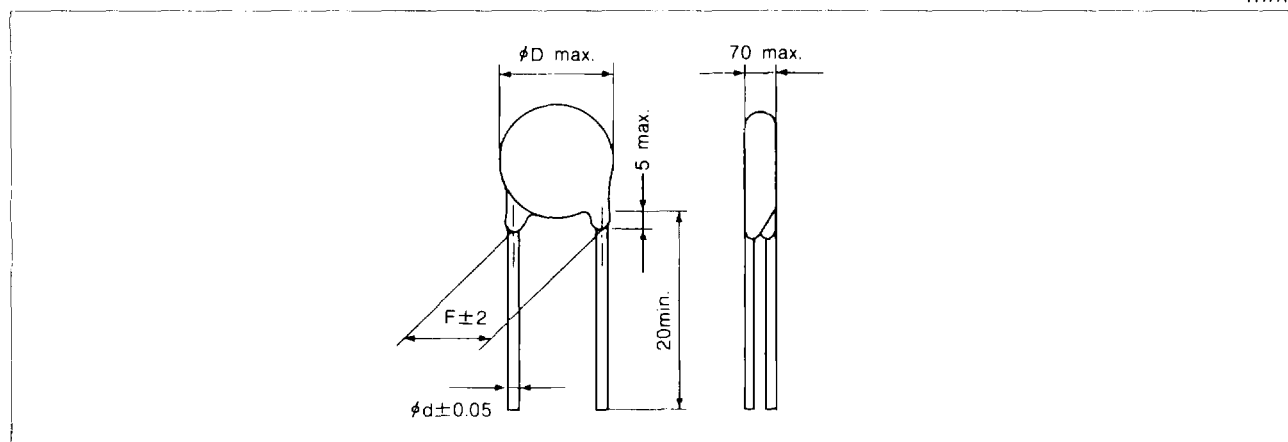


### Specifications

- Operating temperature range:  $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Rated working voltage: 125 V AC. 250 V AC. 400 V AC
- Capacitance: Within the tolerance, when measured at 1 kHz and  $20^{\circ}\text{C}$
- Dissipation factor: 25% max, when measured at 1 kHz and  $20^{\circ}\text{C}$
- Temperature characteristics:
  - B: Max. capacitance change is  $\pm 10\%$  over the temperature range of  $-25^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
  - E: Max. capacitance change is  $+20 \sim -55\%$  over the temperature range of  $-25^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
  - V: Max. capacitance change is  $+30 \sim -80\%$  over the temperature range of  $0^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$
- Dielectric strength: Refer to specifications of each class.
- Body insulation strength: Refer to specifications of each class.
- Insulation resistance:
  - 10,000 megohms min, when measured after 1 minute application of the 500 V DC.
- Dielectric and body insulation strength (For Class I Equipment)
  - 2600 V AC (50 Hz or 60 Hz) for 1 minute
  - Notes, \*2000 V AC for 1 minute; \*\*2500 V AC for 1 minute
  - (Same asterisks as in Standard Products Table)
- Dielectric strength (For Class II Equipment): 4000V AC (50 Hz or 60 Hz) for 1 minute.
- Body insulation strength (For Class II Equipment): 2000V AC (50 Hz or 60 Hz) for 1 minute.

### Type NS For Class I Equipment

#### Dimensions



## Standard products table

Part Number	Capacitance		T.C.	Dimensions			Note
	Rated(pF)	Tol.(%)		D	F	d	
<b>ECK-DNS101MB</b>	100	±20	B	11.0	7.5	0.65	
<b>ECK-DNS151MB</b>	150	±20	B	11.0	7.5	0.65	
<b>ECK-DNS221MB</b>	220	±20	B	11.0	7.5	0.65	
<b>ECK-DNS471MB</b>	470	±20	B	11.0	7.5	0.65	
<b>ECK-DNS102MB</b>	1000	±20	B	11.0	7.5	0.65	
<b>ECK-DNS152ME</b>	1500	±20	E	11.0	7.5	0.65	
<b>ECK-DNS222ME</b>	2200	±20	E	11.0	7.5	0.65	
<b>ECK-DNS332ME</b>	3300	±20	E	13.0	10.0	0.65	
<b>ECK-DNS472ME</b>	4700	±20	E	16.0	10.0	0.65	
<b>ECK-DNS103ME</b>	10000	±20	E	17.5	10.0	0.80	*
<b>ECK-DNS472ZV</b>	4700	+80, -20	V	12.0	10.0	0.65	**
<b>ECK-DNS103ZV</b>	10000	+80, -20	V	14.5	10.0	0.65	**
<b>ECK-DNS223ZV</b>	22000	+80, -20	V	24.0	10.0	0.80	**

Notes : \* Approved only by UL, CSA, BS, SEMKO and SEV1055

\*\* Approved only by UL, CSA, BS, SEMKO and VDE560-2

□ : Cap. tol. K (±10%) or M (±20%)

T.C.=Temperature characteristics

## Rated working voltage

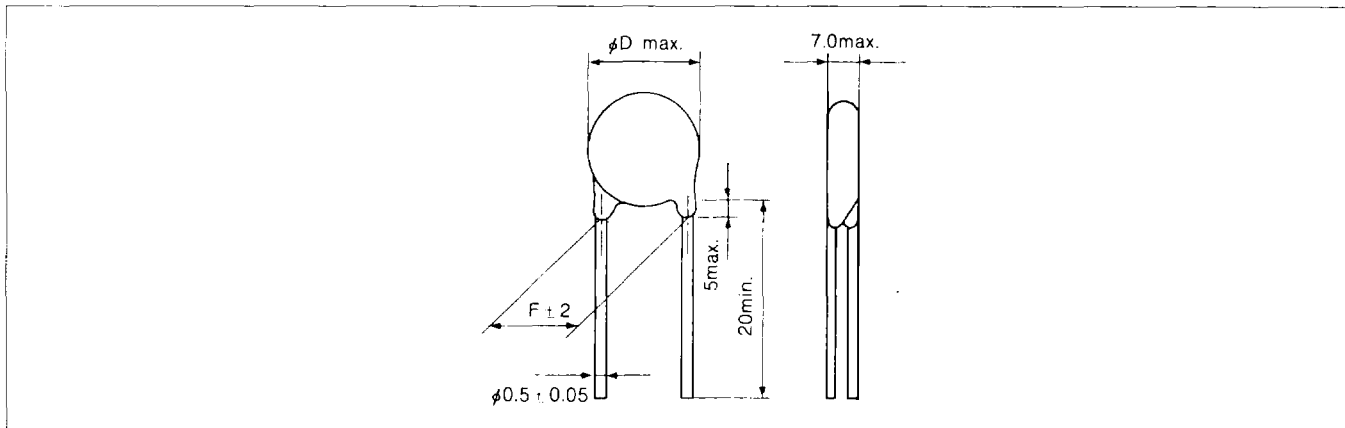
Rated voltage	Applicable standards
125V AC	UL, CSA
250V AC	VDE565-1
400V AC	VDE560-2, BS, SEMKO, SEV.

Related standard	Cartificate number	Note
UL 1414	E 62674	
CSA C22.2	LR 31605	
BS 415	226319	
SEMKO 101	8372418	
SEV1016	J1.31/48	T.C. B and E (1500 to 4700PF)
SEV1055	J1.21/453	T.C. E 10000PF only (X Capacitor)
VDE560-2	32543	T.C. B
	35912	T.C. E (1500 to 4700 PF)
	32542	T.C. V
VDE565-1	32544	T.C. B
	35912	T.C. E (1500 to 4700 PF)

**Type NS For Class II Equipment**

Dimensions

mm



**2 Standard products table**

Part Number	Capacitance		T.C.	Dimensions (mm)			Note
	Rated (pF)	Tol. (%)		D	F	d	
<b>ECK-DNS101MBX</b>	100	$\pm 20$	B	11.0	10.0	0.65	
<b>ECK-DNS151MBX</b>	150	$\pm 20$	B	11.0	10.0	0.65	
<b>ECK-DNS221MBX</b>	220	$\pm 20$	B	11.0	10.0	0.65	
<b>ECK-DNS471MBX</b>	470	$\pm 20$	B	11.0	10.0	0.65	
<b>ECK-DNS102MBX</b>	1000	$\pm 20$	B	11.0	10.0	0.65	
<b>ECK-DNS152MEX</b>	1500	$\pm 20$	E	11.0	10.0	0.65	
<b>ECK-DNS222MEX</b>	2200	$\pm 20$	E	11.0	10.0	0.65	
<b>ECK-DNS332MEX</b>	3300	$\pm 20$	E	13.0	10.0	0.65	
<b>ECK-DNS472MEX</b>	4700	$\pm 20$	E	16.0	10.0	0.65	

T.C.=Temperature characteristics

**Rated working voltage**

Rated voltage	Applicable standards
125V.AC	UL, CSA
250V.AC	VDE565-1
400V.AC	VDE560-2, BS, SEMKO, SEV.

Related standard	Certificate number	Note
UL 1414	E 62674	
CSA C22.2	LR 31605	
BS415	226319	
SEMKO 101	8372418	
SEV 1016	J1.31/48	
VDE560-2	32543	T.C. B
	35912	T.C. E
VDE565-1	32544	T.C. B
	35912	T.C. E