

MOLD TYPE CERAMIC CAPACITOR

INTRODUCTION

The SAMWHA Mold Type capacitor, N4700 / Z5T series, are designed to meet the strict requirements of high voltage SET application.

These capacitors are especially appropriate for applications which require a low dissipation Factor and small voltage coefficient.



FEATURES

- Low dissipation factor
- High insulations resistance.
- Epoxy coating (Flame-retardant, V-0)
- Linear temperature characteristics (N4700)
- Screw terminal type mounting
- Ceramic disc type capacitor
- Negligible piezoelectric / electrostrictive effect

APPLICATIONS

- Industrial High voltage power supplies
- Electrostatic coating machines
- CO₂ lasers equipment
- Welding equipment
- X-ray equipment
- Electron microscopes, synchroscope



MOLD TYPE CERAMIC CAPACITOR

DETAIL SPECIFICATION TABLE

1) N4700 Series

Specification	Capacitance (pF)	Capacitance Tolerance (%)	DC Rated Voltage (kV)	Dimension (mm)			Terminal Type (Screw Thread Type)
				D	L	H	
SMN4A561K24**	560	10	10	24	18	14	ISO M4
SMN4A681K21**	680			21	18	16	ISO M4
SMN4A821K25**	820			25	18	16	ISO M4
SMN4A102K25**	1000			25	18	16	ISO M4
SMN4A222K37**	2200			37	18	16	ISO M4
SMN4A282K38**	2800			38	18	14	ISO M4
SMN4A502K52**	5000			52	18	14	ISO M4
SMN4A682K56**	6800			56	18	16	ISO M4
SMN4A802K60**	8000			60	18	14	ISO M4
SMN4C371K20**	370			10	15	20	19
SMN4C561K25**	560	25	20			18	ISO M4
SMN4C751K30**	750	30	20			18	ISO M4
SMN4C102K32**	1000	32	20			18	ISO M4
SMN4C112K30**	1100	30	18			14	ISO M4
SMN4C152K37**	1500	37	20			18	ISO M4
SMN4C272K44**	2700	44	20			18	ISO M4
SMN4C332K48**	3300	48	20			18	ISO M4
SMN4C472K56**	4700	56	20			18	ISO M4
SMN4D201K21**	200	10	20			21	23
SMN4D281K20**	280			20	24	20	ISO M4
SMN4D401K25**	400			25	23	21	ISO M4
SMN4D561K25**	560			25	23	21	ISO M4
SMN4D102K32**	1000			32	23	21	ISO M4
SMN4D142K38**	1400			38	24	20	ISO M4
SMN4D222K48**	2200			48	23	21	ISO M4
SMN4D332K56**	3300			56	23	21	ISO M4
SMN4D402K60**	4000			60	24	20	ISO M4
SMN4E201K21**	200			10	30	21	27
SMN4E331K25**	330	25	27			25	ISO M4
SMN4E401K32**	400	32	27			25	ISO M4
SMN4E591K30**	590	30	28			24	ISO M4
SMN4E941K40**	940	40	28			24	ISO M4
SMN4E122K44**	1200	44	27			25	ISO M4
SMN4E152K48**	1500	48	27			25	ISO M4
SMN4E222K56**	2200	56	27			25	ISO M4
SMN4E272K60**	2700	60	28			24	ISO M4
SMN4G101K20**	100	10	40			20	32
SMN4G201K24**	200			24	32	28	ISO M4
SMN4G301K30**	300			30	32	28	ISO M4
SMN4G401K34**	400			34	33	29	ISO M4
SMN4G561K34**	560			34	32	28	ISO M4
SMN4G851K40**	850			40	32	28	ISO M4
SMN4G102K48**	1000			48	32	28	ISO M4
SMN4G152K48**	1500			48	32	28	ISO M5
SMN4G202K60**	2000			60	32	28	ISO M5
SMN4H101K20**	100			10	50	20	35
SMN4H151K20**	150	20	35			31	ISO M4
SMN4H201K24**	200	24	35			31	ISO M4
SMN4H331K30**	330	30	38			34	ISO M4
SMN4H471K34**	470	34	35			31	ISO M4
SMN4H561K38**	560	38	36			32	ISO M4
SMN4H851K48**	850	48	35			31	ISO M4
SMN4H102K48**	1000	48	37			33	ISO M5
SMN4H132K52**	1300	52	35			31	ISO M5
SMN4H152K60**	1500	60	37			33	ISO M5

Note : Other capacitance available on request

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DETAIL SPECIFICATION TABLE

2) Z5T Series

Specification	Capacitance (pF)	Capacitance Tolerance (%)	DC Rated Voltage (kV)	Dimension (mm)			Terminal Type (Screw Thread Type)
				D	L	H	
SMZT4D201K20**	200	10	20	20	24	20	ISO M4
SMZT4D401K20**	400			20	24	20	ISO M4
SMZT4D701K30**	700			30	24	20	ISO M4
SMZT4D102K34**	1000			34	25	21	ISO M4
SMZT4D142K38**	1400			38	24	20	ISO M4
SMZT4D252K48**	2500			48	24	20	ISO M4
SMZT4D402K60**	4000			52	24	20	ISO M4
SMZT4E201K25**	200	10	30	24	30	26	ISO M4
SMZT4E401K30**	400			26	30	26	ISO M4
SMZT4E701K34**	700			30	30	26	ISO M4
SMZT4E941K38**	940			34	28	24	ISO M4
SMZT4E172K48**	1700			48	28	24	ISO M4
SMZT4E272K60**	2700			52	28	24	ISO M4
SMZT4G101K20**	100	10	40	20	32	28	ISO M4
SMZT4G201K20**	200			20	32	28	ISO M4
SMZT4G401K24**	400			24	32	28	ISO M4
SMZT4G701K30**	700			30	32	28	ISO M4
SMZT4G132K40**	1300			40	32	28	ISO M4
SMZT4G202K48**	2000			48	32	28	ISO M4
SMZT4H101K20**	100	10	50	20	35	31	ISO M4
SMZT4H201K20**	200			20	37	33	ISO M4
SMZT4H401K30**	400			30	37	33	ISO M4
SMZT4H561K30**	560			30	36	32	ISO M4
SMZT4H102K40**	1000			40	37	33	ISO M4
SMZT4H172K52**	1700			52	37	33	ISO M4

Note : Other capacitance available on request

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SPECIFICATION

ITEM INSPECTION	N4700	Z5T
Capacitance	Based on Specification	
Capacitance Tolerance	Based on Specification	
Rated Voltage	Based on Specification	
Testing Voltage (in insulating liquid or gas) (DC)	Rating voltage x 150%	
Dissipation factor	Max 0.3%	Max 0.2%
Operating temperature range	-30°C ~ +85°C	-30°C ~ +85°C
Temperature coefficient	-4700 ± 1000ppm/°C	-33% ~ +22%
Insulation resistance (DC1000V)	Min 10000MΩ	Min 10000MΩ

TYPE DESIGNATION

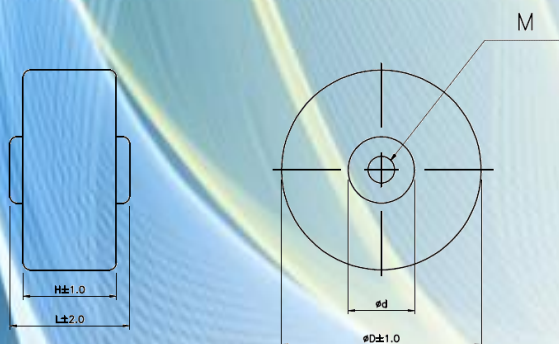
(HOW TO ORDER)

SM **N** **4C** **112** **K** **30** **NO**
 ↓ ↓ ↓ ↓ ↓ ↓ ↓
1 **2** **3** **4** **5** **6** **7**

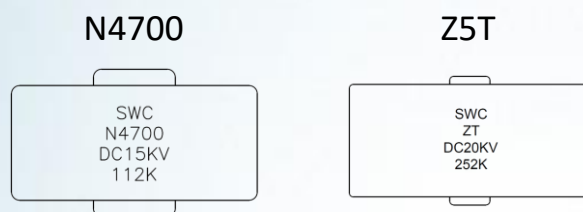
Code	Explanation
1	Basic Type : Samwha Mold Type
2	Temperature characteristics : N : N4700 ZT : Z5T
3	Rating Voltage (4A : 10kV, 4B : 12kV, 4C : 15kV, 4D : 20kV, 4E : 30kV, 4G : 40kV)
4	Nominal Capacitance
5	Capacitance Tolerance (K : ±10%, M : ±20%)
6	Size Code
7	Nut Type (NO, NI, BO, LO, PC)

DESIGN AND MARKING

Design



Marking

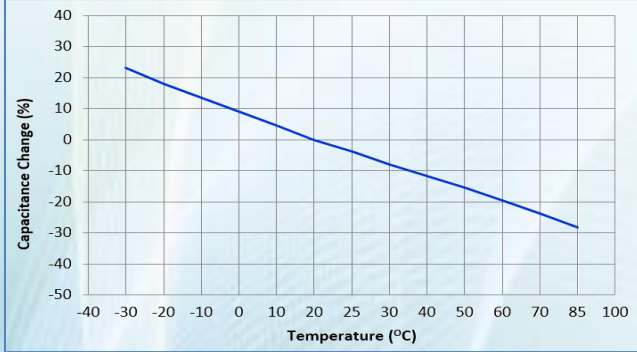


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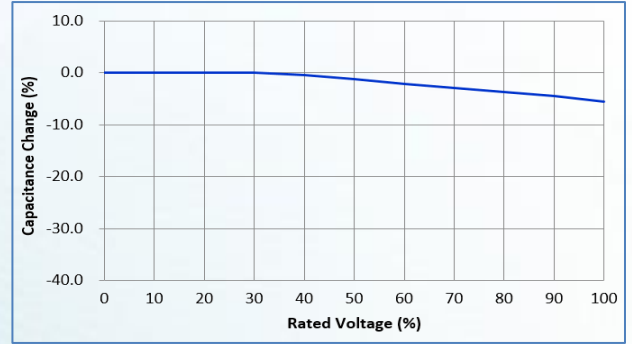
TYPICAL CHARACTERISTICS DATA

1). N4700 Series

Temperature Characteristics

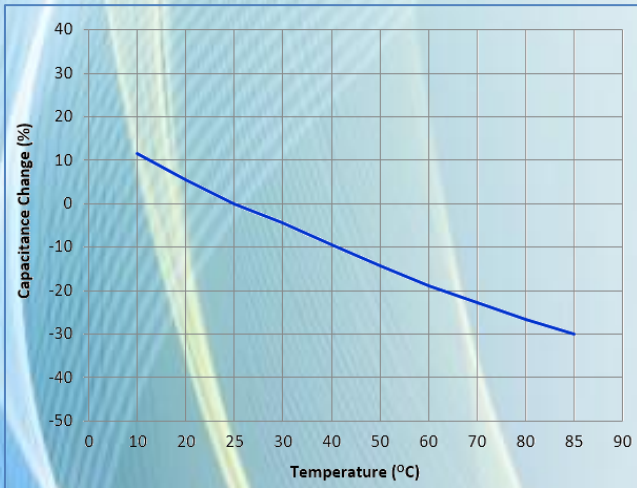


Typical Voltage Coefficient



2). Z5T Series

Temperature Characteristics



Typical Voltage Coefficient

