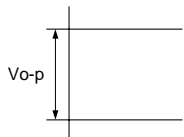
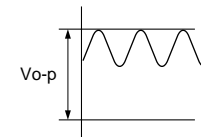
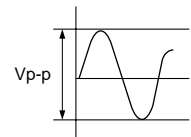
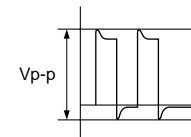
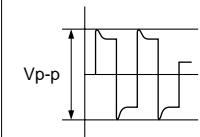


No	Item		Specifications	Test Method												
1	Operating Temperature Range		-20 to +85°C	_____												
2	Capacitance		Within the specified tolerance.	The capacitance should be measured at 20°C with 1±0.1kHz and AC 1 to 5V(r.m.s.).												
3	Temperature Characteristics		Temperature coefficient -4700±1000ppm/°C (Temp. range: +20 to +85°C)	<div>The capacitance measurement should be made at each step specified in table. Capacitance change from the value of step 3 should not exceed the limit specified.</div> <table><tr><td>Step</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td>Temp. (°C)</td><td>—</td><td>—</td><td>20±2</td><td>85±2</td><td>20±2</td></tr></table>	Step	1	2	3	4	5	Temp. (°C)	—	—	20±2	85±2	20±2
Step	1	2	3	4	5											
Temp. (°C)	—	—	20±2	85±2	20±2											
4	Dissipation Factor (D.F.)		0.3% max.	The dissipation factor should be measured at 20°C with 1±0.1kHz and AC 1 to 5V(r.m.s.).												
5	Dielectric Strength	Between Terminal	No failure	The capacitor should not be damaged when DC voltage of 150% of the rated voltage is applied between the terminals for 60±5 sec. in insulating liquid or gas. (Charge/Discharge current ≤ 50mA)												
6	Insulation Resistance (I.R.)		10000MΩ min.	The insulation resistance should be measured with DC1000V within 60±5 sec. of charging.												
7	Strength of Terminal	Torque Strength	Capacitor should not be broken.	<div>When mounting the capacitor on equipment, be sure to mount them within the torque strength values shown in the table below.</div> <table><tr><td>Terminal Type</td><td>torque (N·m)</td></tr><tr><td>ISO M4, No.8-32</td><td>1.5</td></tr></table>	Terminal Type	torque (N·m)	ISO M4, No.8-32	1.5								
Terminal Type	torque (N·m)															
ISO M4, No.8-32	1.5															
8	Life	Appearance	No marked defect	<div>Apply a DC voltage of 125% of the rated voltage for 100+24/-0 hrs. in silicon oil at 85±2°C.</div> <div>Post-treatment: Capacitor should be stored for 24 hrs. at *room condition. (Charge/Discharge current ≤ 50mA)</div>												
		Capacitance Change	Within ±5%													
		D.F.	1.0% max.													
		I.R.	1000MΩ min.													
9	Humidity (Under Steady State)	Appearance	No marked defect	<div>Set the capacitor for 100+24/-0 hrs. at 40±2°C in 90 to 95% relative humidity. Post-treatment: Capacitor should be stored for 24 hrs. at *room condition.</div>												
		Capacitance Change	Within ±5%													
		D.F.	1.0% max.													
		I.R.	1000MΩ min.													

* "room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmospheric pressure: 86 to 106kPa

1. Operating voltage

When DC-rated capacitors are to be used in AC or ripple current circuits, be sure to maintain the V_{p-p} value of the applied voltage or the V_{o-p} which contains DC bias within the rated voltage range. When the voltage is applied to the circuit, starting or stopping may generate irregular voltage for a transit period because of resonance or switching. Be sure to use a capacitor with a rated voltage range that includes these irregular voltages.

Voltage	DC Voltage	DC+AC Voltage	AC Voltage	Pulse Voltage (1)	Pulse Voltage (2)
Positional Measurement					

2. Operating temperature and self-generated heat

Keep the surface temperature of a capacitor below the upper limit of its rated operating temperature range. Be sure to take into account the heat generated by the capacitor itself.

When the capacitor is used in a high-frequency current, pulse current or similar current, it may self-generate heat due to dielectric loss. The applied voltage load should be such that the capacitor's self-generated heat is within 10°C at an atmosphere temperature of 25°C.

When measuring, use a thermocouple of small thermal capacity-K of $\phi 0.1\text{mm}$ in conditions where the capacitor is not affected by radiant heat from other components or surrounding ambient fluctuations.

Excessive heat may lead to deterioration of the capacitor's characteristics and reliability. (Never attempt to perform measurement with the cooling fan running.

Otherwise, accurate measurement cannot be ensured.)

FAILURE TO FOLLOW THE ABOVE CAUTIONS MAY RESULT, WORST CASE, IN A SHORT CIRCUIT AND CAUSE FUMING OR PARTIAL DISPERSION WHEN THE PRODUCT IS USED.

● Part Numbering

High Voltage Ceramic Capacitors (over 10kV)

(Part Number)

DH	R	B3	4A	101	M	2B	B
①	②	③	④	⑤	⑥	⑦	⑧

① Product ID

Product ID	
DH	High Voltage Ceramic Capacitors (over 10kV)

② Series Category

Code	Contents
R	Radial Type
S	Mold Type

First three digits of part number (① Product ID and ② Series Category) express "Series Name".

③ Temperature Characteristics

Code	Temp. Char.	Cap. Change or Temp. Coeff.	Temp. Range
B3	B	±10%	−25 to +85°C
F4	Z5V	+22%, −82%	+10 to +85°C
4E	ZM	−4700±1000ppm/°C	+20 to +85°C
	N4700		

④ Rated Voltage

Code	Rated Voltage
4A	DC10kV
4B	DC12kV
4C	DC15kV
4D	DC20kV
4F	DC30kV
4G	DC40kV

⑤ Capacitance

Expressed by three figures. The unit is pico-farad (pF). The first and second figures are significant digits, and the third figure expresses the number of zeros which follow the two numbers. If there is a decimal point, it is expressed by the capital letter "R". In this case, all figures are significant digits.

⑥ Capacitance Tolerance

Code	Capacitance Tolerance
K	±10%
M	±20%
Z	+80%, −20%

⑦ Lead Type (DHR Series)

Code	Lead Type	Lead Spacing	Lead Diameter
2B	Straight Long	9.5mm	ø0.65mm
2F		12.7mm	ø0.8mm

⑦ Body Diameter and Terminal Type (DHS Series)

Code	Body Diameter	Terminal Type
C2	20mm	ISO M4, P0.7 Tapped Holes (Metric Screw Thread)
D2	24mm	
H2	30mm	
L2	38mm	
N2	43mm	
R2	52mm	
T2	60mm	No.8-32, NC-2B Tapped Holes (Inch Screw Thread)
CX	20mm	
DX	24mm	
HX	30mm	
LX	38mm	
NX	43mm	
RX	52mm	
TX	60mm	

⑧ Packaging

Code	Packaging
B	Bulk