

## Ceramic Singlelayer DC Disc Capacitors, 5 kV<sub>DC</sub> General Purpose



QUICK REFERENCE DATA		
DESCRIPTION	VALUE	
Ceramic Class	1	2
Ceramic Dielectric	N750, Y5U	
Voltage (V <sub>DC</sub> )	5000	
Min. Capacitance (pF)	22	220
Max. Capacitance (pF)	330	2200
Mounting	Radial	

### MARKING

Marking indicates, capacitance, tolerance code, and rated voltage.

### OPERATING TEMPERATURE RANGE

-40 °C to +85 °C

### TEMPERATURE CHARACTERISTICS

Class 1 N750 (U2J)

Class 2 Y5U

### SECTIONAL SPECIFICATIONS

Climatic category (according to EN 60068-1):  
40/085/21

### FEATURES

- High capacitance in small sizes
- Low losses
- Wide range of different lead styles
- Material categorization:  
for definitions of compliance please see  
[www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT

### APPLICATIONS

- Lighting ballasts
- SMPS

### DESIGN

The capacitors consist of a ceramic disc which is silver plated on both sides. Connection leads are made of tinned copper having diameters of 0.6 mm or 0.8 mm.

The capacitors may be supplied with straight or kinked leads having a lead spacing of 12.5 mm.

Coating is made of blue colored flame retardant epoxy resin in accordance with UL 94 V-0.

### CAPACITANCE RANGE

22 pF to 2.2 nF

### RATED VOLTAGE

5 kV<sub>DC</sub>

### DIELECTRIC STRENGTH

7500 V<sub>DC</sub>, 2 s Component test

### INSULATION RESISTANCE AT 500 V<sub>DC</sub>

≥ 10 000 MΩ (60 s)

### TOLERANCE ON CAPACITANCE

± 10 %, ± 20 %

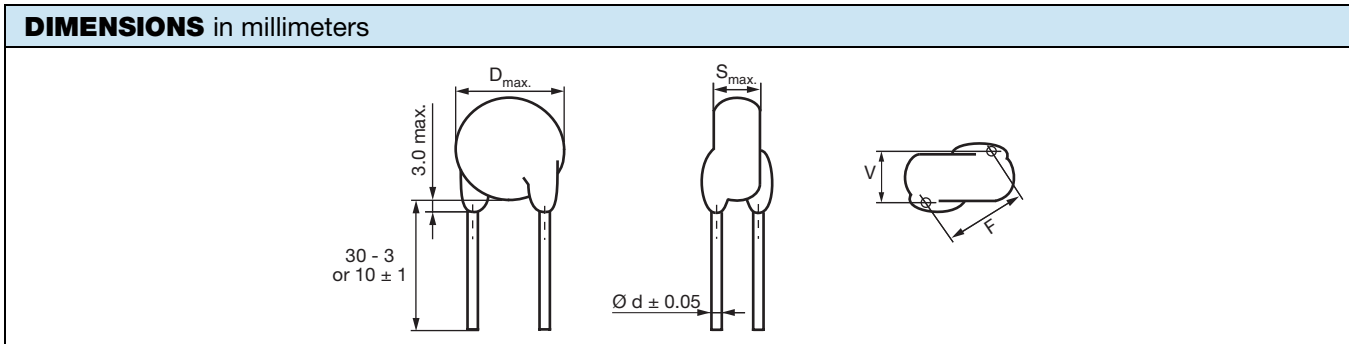
### DISSIPATION FACTOR

Class 1:

$C < 30 \text{ pF: } \left( \frac{100 \text{ pF}}{C} + 0.7 \right) \times 10^{-4} \text{ max. (1 MHz)}$

$C \geq 30 \text{ pF: max. 0.1 \% (1 MHz)}$

Class 2: max. 2.5 % (1 kHz)

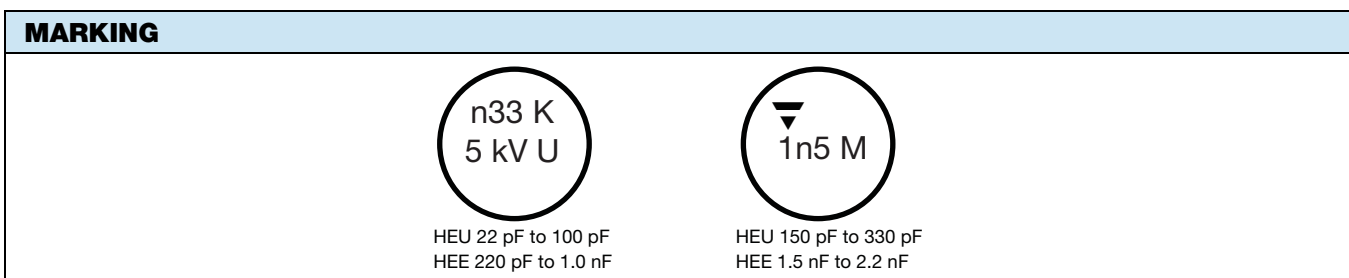


ORDERING INFORMATION								
CAPACITANCE (pF)	TOLERANCE (%)	BODY DIAMETER D <sub>max.</sub> (mm)	BODY THICKNESS S <sub>max.</sub> (mm)	LEAD SPACING <sup>(1)</sup> F (mm) ± 1 mm	LEAD DIAMETER <sup>(1)</sup> d (mm) ± 0.05 mm	WIDTH <sup>(1)</sup> V (mm) ± 0.5 mm	ORDERING CODE MISSING DIGITS SEE ORDERING CODE BELOW	
<b>N750 (U2J)</b>								
22	± 10	7.0	4.8	12.5	0.6	2.2	HEU220KBE###KR	
33		9.3					HEU330KBE###KR	
47		9.3					HEU470KBE###KR	
68		11.8	5.2		0.8	1.9	HEU680KBE###KR	
82							HEU820KBE###KR	
100							HEU101KBE###KR	
150							14.4	HEU151KBE###KR
220							16.3	HEU221KBE###KR
330							19.5	HEU331KBE###KR
<b>Y5U (2E3)</b>								
220	± 20 <sup>(2)</sup>	7.0	5.0	12.5	0.6	3.8	HEE221#BE###KR	
330		9.0					HEE331#BE###KR	
680		11.0			HEE681#BE###KR			
1000		13.0			HEE102#BE###KR			
1500		15.0			HEE152#BE###KR			
2200		15.0			HEE222#BE###KR			

**Notes**

- <sup>(1)</sup> Standard lead configuration, other lead spacing and diameter available on request
- <sup>(2)</sup> ± 10 % available on request

ORDERING CODE							
#	7 <sup>th</sup> digit	Capacitance tolerance	± 10 % = K, ± 20 % = M				
###	10 <sup>th</sup> to 12 <sup>th</sup> digit	Lead configuration	see "General Information"				
<b>Example</b>	<b>HEE</b>	<b>222</b>	<b>M</b>	<b>BE</b>	<b>EJ0</b>	<b>K</b>	<b>R</b>
	Series	Capacitance value	Tolerance code	Voltage code	Lead configuration	Internal code	RoHS compliant



RELATED DOCUMENTS	
General Information	<a href="http://www.vishay.com/doc?22001">www.vishay.com/doc?22001</a>



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