Ceramic Singlelayer DC Disc Capacitors, 3 kV_{DC} General Purpose

QUICK REFERENCE DATA		
DESCRIPTION	VALUE	
Ceramic Class	1	2
Ceramic Dielectric	N750, Y5T, Y5U	
Voltage (V_{DC})	3000	
Min. Capacitance (pF)	10	68
Max. Capacitance (pF)	330	10 000
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 Y5S, Y5U, Y5V

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

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 7.5 mm.

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

CAPACITANCE RANGE

10 pF to 22 nF

RATED VOLTAGE

3 kV_{DC}

DIELECTRIC STRENGTH

5000 V_{DC}, 2 s Component test

INSULATION RESISTANCE AT 500 V_{DC}

≥ 10 000 MΩ (60 s)

TOLERANCE ON CAPACITANCE

± 10 %, ± 20 %

DISSIPATION FACTOR

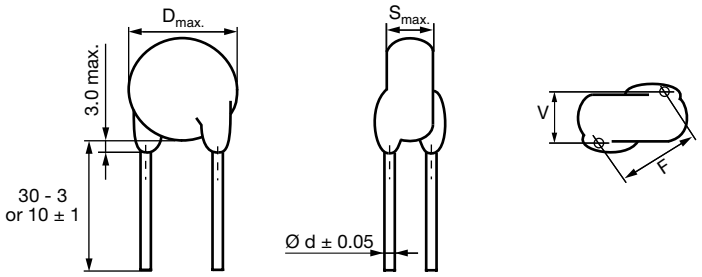
Class 1:

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

C ≥ 30 pF: max. 0.1 % (1 MHz)

Class 2: max. 2.5 % (1 kHz)

DIMENSIONS in millimeters



ORDERING INFORMATION

CAPACITANCE (pF)	TOLERANCE (%)	BODY DIAMETER $D_{max.}$ (mm)	BODY THICKNESS $S_{max.}$ (mm)	LEAD SPACING (1) F (mm) ± 1 mm	LEAD DIAMETER (1) d (mm) ± 0.05 mm	WIDTH (1) V (mm) ± 0.5 mm	ORDERING CODE MISSING DIGITS SEE ORDERING CODE BELOW
N750 (U2J)							
10	± 10	7.0	4.0	10.0	0.6	1.3	HCU100KBC###KR
15							HCU150KBC###KR
22							HCU220KBC###KR
33							HCU330KBC###KR
47		8.0				1.4	HCU470KBC###KR
68		9.0					HCU680KBC###KR
82		10.0	4.4		0.8	1.6	HCU820KBC###KR
100							HCU101KBC###KR
150		11.0					HCU151KBC###KR
220		15.0					HCU221KBC###KR
330		17.0					HCU331KBC###KR
Y5T (2D3)							
68	± 10, ± 20	7.0	4.0	10.0	0.6	1.8	HCZ680#BC###KR
82							HCZ820#BC###KR
100							HCZ101#BC###KR
120							HCZ121#BC###KR
150							HCZ151#BC###KR
180		8.0					HCZ181#BC###KR
220							HCZ221#BC###KR
330							HCZ331#BC###KR
470		10.0					HCZ471#BC###KR
680							HCZ681#BC###KR
1000		11.0			0.8	2.0	HCZ102#BC###KR
1200		15.0					HCZ122#BC###KR
1500							HCZ152#BC###KR
2200		17.0					HCZ222#BC###KR
3300		21.0					HCZ332#BC###KR
4700							HCZ472#BC###KR
6800		25.0					HCZ682#BC###KR

ORDERING INFORMATION

CAPACITANCE (pF)	TOLERANCE (%)	BODY DIAMETER $D_{max.}$ (mm)	BODY THICKNESS $S_{max.}$ (mm)	LEAD SPACING (1) F (mm) ± 1 mm	LEAD DIAMETER (1) d (mm) ± 0.05 mm	WIDTH (1) V (mm) ± 0.5 mm	ORDERING CODE MISSING DIGITS SEE ORDERING CODE BELOW
Y5U (2E3)							
470	± 20	7.0	4.0	10.0	0.6	2.0	HCE471MBC###KR
680		8.0					HCE681MBC###KR
1000		9.0					HCE102MBC###KR
1500		11.0					HCE152MBC###KR
2200							HCE222MBC###KR
3300		15.0			0.8	2.2	HCE332MBC###KR
4700		17.0					HCE472MBC###KR
6800		21.0					HCE682MBC###KR
10 000		25.0				2.5	HCE103MBC###KR

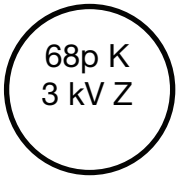
Note

(1) Standard lead configuration, other lead spacing and diameter available on request

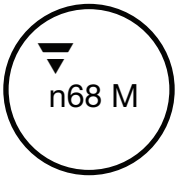
ORDERING CODE

#	7th digit	Capacitance tolerance	± 10 % = K, ± 20 % = M				
###	10th to 12th digit	Lead configuration	see "General Information"				
Example	**HCE**	**152**	**M**	**BC**	**DD0**	**K**	**R**
	Series	Capacitance value	Tolerance code	Voltage code	Lead configuration	Internal code	RoHS compliant

MARKING



HCU 10 pF to 150 pF
HCZ 68 pF to 1.0 nF
HCE 470 pF to 2.2 nF



HCU 220 pF to 330 pF
HCZ 1.2 nF to 6.8 nF
HCE 3.3 nF to 10 nF

RELATED DOCUMENTS

General Information	www.vishay.com/doc?22001

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