

Ceramic Singlelayer DC Disc Capacitors, 6 kV_{DC} General Purpose



QUICK REFERENCE DATA

DESCRIPTION	VALUE	
Ceramic Class	1	2
Ceramic Dielectric	N750, Y5T, Y5U	
Voltage (V _{DC})	6000	
Min. Capacitance (pF)	10	56
Max. Capacitance (pF)	330	6800
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 Y5T, 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



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

10 pF to 6.8 nF

RATED VOLTAGE

6 kV_{DC}

DIELECTRIC STRENGTH

9000 V_{DC}, 2 s Component test

INSULATION RESISTANCE AT 500 V_{DC}

≥ 10 000 MΩ (60 s)

TOLERANCE ON CAPACITANCE

± 10 %, ± 20 %

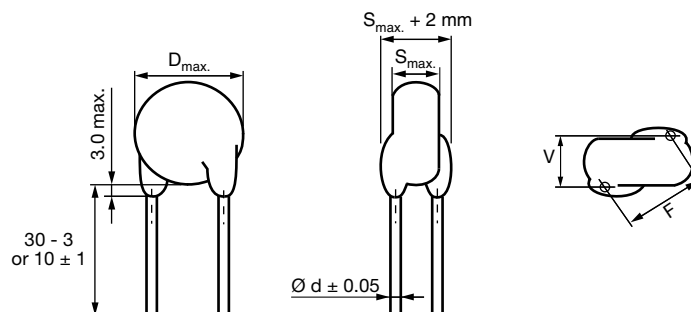
DISSIPATION FACTOR

Class 1:

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

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

Class 2: max. 2.5 % (1 kHz)

**DIMENSIONS** in millimeters**ORDERING INFORMATION**

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	4.8	12.5	0.6	2.2	HFU100KBF####KR
15							HFU150KBF####KR
22							HFU220KBF####KR
33							HFU330KBF####KR
47							HFU470KBF####KR
68		12.0	5.2		0.8	2.4	HFU680KBF####KR
82							HFU820KBF####KR
100							HFU101KBF####KR
150							HFU151KBF####KR
220							HFU221KBF####KR
330		20.0					HFU331KBF####KR
Y5T (2E3)							
56	± 20 ⁽²⁾	7.0	5.0	12.5	0.6	3.5	HFZ560#BF####KR
68							HFZ680#BF####KR
82							HFZ820#BF####KR
100		8.0					HFZ101#BF####KR
120							HFZ121#BF####KR
150							HFZ151#BF####KR
180		10.0					HFZ181#BF####KR
220							HFZ221#BF####KR
270							HFZ271#BF####KR
330		12.0					HFZ331#BF####KR
390							HFZ391#BF####KR
470							HFZ471#BF####KR
560		13.0			0.8		HFZ561#BF####KR
680		15.0					HFZ681#BF####KR
820							HFZ821#BF####KR
1000							HFZ102#BF####KR
1200		17.0					HFZ122#BF####KR
1500		19.0					HFZ152#BF####KR
1800		21.0					HFZ182#BF####KR
2200							HFZ222#BF####KR
2700		25.0					HFZ272#BF####KR



ORDERING INFORMATION

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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)							
150	± 20	7.0	5.0	12.5	0.6	3.5	HFE151MBF###KR
220							HFE221MBF###KR
330							HFE331MBF###KR
470							HFE471MBF###KR
680							HFE681MBF###KR
1000		11.0	5.5		HFE102MBF###KR		
1500		13.0			HFE152MBF###KR		
2200		15.0			HFE222MBF###KR		
3300		21.0			HFE332MBF###KR		
4700					HFE472MBF###KR		
6800					23.0		HFE682MBF###KR

Notes

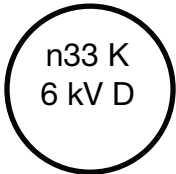
(1) Standard lead configuration, other lead spacing and diameter available on request

(2) ± 10 % available on request

ORDERING CODE

#	7 th digit	Capacitance tolerance	± 10 % = K, ± 20 % = M				
###	10 th to 12 th digit	Lead configuration	see "General Information"				
Example	HFE	682	M	BF	EF0	K	R
	Series	Capacitance value	Tolerance code	Voltage code	Lead configuration	Internal code	RoHS compliant

MARKING

 n33 K 6 kV D HFU 10 pF to 100 pF HFZ 56 pF to 470 pF HFE 150 pF to 1.0 nF	 4n7 M HFU 150 pF to 330 pF HFZ 560 nF to 2.7 nF HFE 1.5 nF to 6.8 nF
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RELATED DOCUMENTS

General Information	www.vishay.com/doc?22001
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