# Ceramic Disc Capacitors Class 1 and 2, 1 $kV_{DC}\,$ to 50 $kV_{DC}$ , General Purpose



Capacitors with 7.5 mm (0.30") to 15 mm (0.40") lead spacing(P)

QUICK REFERENCE DATA	
DESCRIPTION	UJ,SL,X5F,X7R,N4700,Y5T,Y5U,Y5V
Voltage (V <sub>DC</sub> )	1000 to 50000
Min. Capacitance (pF)	10
Max. Capacitance (pF)	33 000
Mounting	Through hole

#### **OPERATING TEMPERATURE RANGE**

Class 1 SL, - 25 °C to + 85 °C

Class 2, Y5T, Y5U, Y5V, - 25 °C to + 85 °C

Class 2, X5F, X7R, N4700 - 40 °C to + 125 °C

### **TEMPERATURE COEFFICIENTS**

Class 1 SL Class 2 X7R, Y5P, Z5U, Y5V, X5F

#### **CAPACITANCE RANGE**

10 pF to 33 000 pF

#### RATED DC VOLTAGE

1 kV to 50 kV

## DIELECTRIC STRENGTH

200 % of rated voltage

## FEATURES

- Low losses
- High stability
- High capacitance in small size
- Kinked (preferred) or straight leads
- Compliant to RoHS directive 2002/95/EC

### APPLICATIONS

- DC high voltage
- Pulse high voltage
- SMPS
- HV power supply
- HF ballast

#### DESIGN

The capacitors consist of a ceramic disc both sides of which are silver-plated. Connection leads are made of tinned copper.

The capacitors may be supplied with kinked or straight leads with a lead spacing of 5 mm (0.20"), 7.5 mm (0.30") or 10 mm (0.40") and a lead length from 4 mm to 30 mm. The standard tolerance on capacitance is 5 % or 10 % for class 1 capacitors and  $\pm$  10 % or  $\pm$  20 % for class 2 capacitors. Encapsulation is made of blue-colored epoxy-resin.

#### INSULATION RESISTANCE AT 500 VDC

N4700:	>= 200 000 MΩ
UJ,SL,X5F,X7R,Y5T:	$>=$ 100 000 M $\Omega$
Y5U,Y5V:	>= 10 000 MΩ

## **TOLERANCE ON CAPACITANCE**

 $\pm$  5 %;  $\pm$  10 %;  $\pm$  20 %; + 80/- 20 % Other tolerances available on request

#### **DISSIPATION FACTOR**

UJ,SL: 6X10<sup>-4</sup> X5F: 1% X7R: 1.5% N4700: 0.1% to 0.2% Y5T: 1% Y5U,Y5V: 2%

