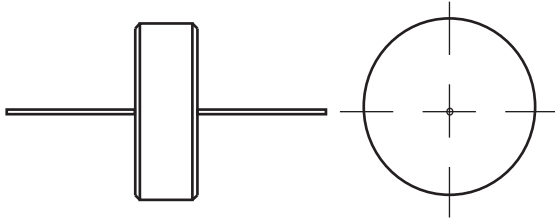


# High Voltage Ceramic Capacitors with Axial Leads


**RoHS**  
COMPLIANT

**FEATURES**

- Class 1 and class 2 ceramic
- High insulation resistance
- Epoxy encapsulated
- Wide capacitance range
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

**DIELECTRIC STRENGTH**

150 % of rated voltage (in dielectric fluid), charging current limited to 50 mA.

**DISSIPATION FACTOR  $\tan \delta$** 

 N4700:  $\leq 2 \times 10^{-3}$  (1 kHz)  
 X7R, Z5U:  $\leq 20 \times 10^{-3}$  (1 kHz)

**INSULATION RESISTANCE**

 Min. 200 000 M $\Omega$ , at 180 V<sub>DC</sub> or 1000  $\Omega$ F

**OPERATING TEMPERATURE RANGE**

- 55 °C to + 125 °C

**RATED VOLTAGE**

- 660C 10A ... 10 kV<sub>DC</sub> Standard version
- 660C 15A ... 15 kV<sub>DC</sub> Standard version
- 660C 20A ... 20 kV<sub>DC</sub> Standard version
- 660C 30A ... 30 kV<sub>DC</sub> Standard version
- 660R 10A ... 10 kV<sub>DC</sub> RoHS compliant version
- 660R 15A ... 15 kV<sub>DC</sub> RoHS compliant version
- 660R 20A ... 20 kV<sub>DC</sub> RoHS compliant version
- 660R 30A ... 30 kV<sub>DC</sub> RoHS compliant version

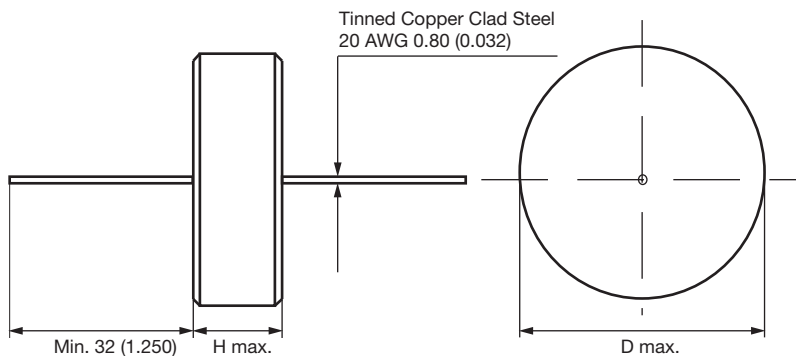
QUICK REFERENCE DATA			
DESCRIPTION	VALUE		
Ceramic Class	1	2	2
Ceramic Dielectric	N4700	X7R	Z5U
Voltage (V <sub>DC</sub> )	30 000	30 000	30 000
Min. Capacitance (pF)	180	100	470
Max. Capacitance (pF)	2000	4700	10 000
Mounting	Axial		

**MARKING**

Capacitance value and tolerance, rated DC voltage, T/C code, production date code, CM mark.

**MATERIAL**

 Capacitor elements made from class 1 or class 2 ceramic in a molded case, high temperature epoxy construction.  
 Leads: Tinned copper clad steel.

**DIMENSIONS** in millimeters (inches)


ORDERING INFORMATION				
660C20AZT68	20 kV <sub>DC</sub>	680 pF	± 20 %	N4700
MODEL	RATED VOLTAGE	CAPACITANCE VALUE	TOLERANCE	CERAMIC



SAP NUMBER AND ELECTRICAL DATA									
MODEL NUMBER 4 <sup>TH</sup> DIGIT: C = STANDARD R = RoHS COMPLIANT	CERAMIC	CAP. VALUE (pF)	TOLERANCE (%)	RATED VOLTAGE (kV <sub>DC</sub> )	RATED VOLTAGE (kV <sub>RMS</sub> )	D MAX. (mm)	D MAX. (INCHES)	H MAX. (mm)	H MAX. (INCHES)
<b>660.10AZ....</b>									
660.10AZT47	N4700	470	± 20 %	10	3	21	0.83	13	0.50
660.10AZD10		1000				30	1.18		
660.10AZD20		2000				37	1.45		
<b>660.10AC...</b>									
660.10ACT18	X7R	180	± 20 %	10	3	21	0.83	13	0.50
660.10ACT22		220							
660.10ACT33		330							
660.10ACT47		470							
660.10ACT68		680							
660.10ACD10		1000				30	1.18	15	0.60
660.10ACD15		1500							
660.10ACD22		2200							
660.10ACD33		3300				37	1.45	14	0.55
660.10ACD47		4700							
<b>660.10AE...</b>									
660.10AED15	Z5U	1500	+ 80 %/ - 20 %	10	3	21	0.83	13	0.50
660.10AED22		2200							
660.10AED33		3300							
660.10AED47		4700				37	1.45	11	0.45
660.10AED68		6800							
660.10AES10		10 000							
<b>660.15AZ...</b>									
660.15AZT39	N4700	390	± 20 %	15	5	21	0.83	13	0.50
660.15AZT82		820				30	1.18		
660.15AZD15		1500				37	1.45		
<b>660.15AC...</b>									
660.15ACT10	X7R	100	± 20 %	15	5	21	0.83	13	0.50
660.15ACT22		220							
660.15ACT33		330							
660.15ACT47		470							
660.15ACT68		680							
660.15ACD10		1000				30	1.18	15	0.60
660.15ACD15		1500							
660.15ACD22		2200							
660.15ACD33		3300				37	1.45	17	0.65
660.15ACD39		3900							
<b>660.15AE...</b>									
660.15AED10	Z5U	1000	+ 80 %/ - 20 %	15	5	21	0.83	13	0.50
660.15AED15		1500							
660.15AED22		2200							
660.15AED33		3300				30	1.18	13	0.50
660.15AED47		4700							
660.15AED68		6800							
<b>660.20AZ...</b>									
660.20AZT22	N4700	220	± 20 %	20	7	21	0.83	15	0.60
660.20AZT68		680				30	1.18		
660.20AZD10		1000				37	1.45		



SAP NUMBER AND ELECTRICAL DATA											
MODEL NUMBER 4 <sup>TH</sup> DIGIT: C = STANDARD R = RoHS COMPLIANT	CERAMIC	CAP. VALUE (pF)	TOLERANCE (%)	RATED VOLTAGE (kV <sub>DC</sub> )	RATED VOLTAGE (kV <sub>RMS</sub> )	D MAX. (mm)	D MAX. (INCHES)	H MAX. (mm)	H MAX. (INCHES)		
<b>660.20AC...</b>											
660.20ACT10	X7R	100	± 20 %	20	7	21	0.83	15	0.60		
660.20ACT22		220						17	0.65		
660.20ACT33		330						30	1.18	15	0.60
660.20ACT47		470								17	0.65
660.20ACT68		680								15	0.60
660.20ACD10		1000				37	1.45	20	0.80		
660.20ACD15		1500						18	0.70		
660.20ACD22		2200						19	0.75		
660.20ACD25		2500						20	0.80		
660.20ACD27		2700				20	0.80				
<b>660.20AE...</b>											
660.20AET68	Z5U	680	+ 80 %/ - 20 %	20	7	21	0.83	15	0.60		
660.20AED10		1000						17	0.66		
660.20AED15		1500						30	1.18	15	0.60
660.20AED22		2200				19	0.75				
660.20AED33		3300									
660.20AED47		4700				37	1.45			14	0.55
660.20AED50		5000									
<b>660.30AZ...</b>											
660.30AZT18	N4700	180	± 20 %	30	10	21	0.83	20	0.80		
660.30AZT47		470				30	1.18				
660.30AZT68		680				37	1.45				
<b>660.30AC...</b>											
660.30ACT10	X7R	100	± 20 %	30	10	21	0.83	20	0.80		
660.30ACT22		220						30	1.18	19	0.75
660.30ACT33		330								20	0.80
660.30ACT47		470									
660.30ACT68		680				37	1.45	20	0.80		
660.30ACD10		1000									
660.30ACD15		1500									
660.30ACD20		2000									
<b>660.30AE...</b>											
660.30AET47	Z5U	470	+ 80 %/ - 20 %	30	10	21	0.83	20	0.80		
660.30AET68		680						19	0.75		
660.30AET82		820						20	0.80		
660.30AED10		1000									
660.30AED12		1200				30	1.18	19	0.75		
660.30AED15		1500									
660.30AED18		1800									
660.30AED20		2000				37	1.45				
660.30AED22		2200									
660.30AED25		2500									
660.30AED30		3000									
660.30AED33		3300				20	0.80				



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