RF Power Barrel Capacitors
Class 1 Ceramic



QUICK REFERENCE DATA		
DESCRIPTION	VALUE	
Ceramic Class	1	1
Ceramic Dielectric	C0G (NP0)	U2J (N750)
Type	5FCA, 5FDA, 5FEA, 5FFA, 5FGA, 5FHA	5FCU, 5FDU, 5FEP, 5FFU, 5FGU, 5FHU
Voltage (V_{DC})	5000	5000
Min. Capacitance (pF)	3.0	10
Max. Capacitance (pF)	20	40
Mounting	Through hole or screw mounting	

MATERIAL

Capacitor elements made from Class 1 ceramic dielectric with noble metal electrodes.

Connection terminals:

- Axial wire leads, tinned copper (style FC., FD., FE.)
- Thread terminal, brass, silver plated (style FF., FG., FH.)

Allowable torque: 0.34 Nm (3.0 lbf in)

FINISH

Capacitor body completely protective laquered

MARKING

Type designator, capacitance value and tolerance, rated peak voltage, ceramic material code, production date code, manufacturer logo

FEATURES

- Very small size make it well suited in mobile equipment
- Geometry minimizes inductance, optimizes voltage withstand and maximizes heat radiation
- Available with thread terminals or solderable wire leads

APPLICATIONS

- Radio communication equipment
- Small broadcasting equipment
- RF power supply

CAPACITANCE RANGE

3.0 pF to 40 pF

CAPACITANCE TOLERANCE

< 5 pF: ± 0.25 pF; ± 0.5 pF

≥ 5 pF: ± 10 %; ± 5 %

CERAMIC DIELECTRICS

- C0G (NP0)
- U2J (N750)

RATED VOLTAGE

5.0 kV_{DC}

DIELECTRIC STRENGTH TEST

150 % of rated DC voltage

DISSIPATION FACTOR

Max. 0.2 % (1 MHz)

INSULATION RESISTANCE

Min. 100 000 MΩ (at 25 °C)

OPERATING TEMPERATURE RANGE

- 55 °C to + 100 °C

For technical questions, contact: powcap@vishay.com

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SAP PART NUMBER AND ELECTRICAL DATA

PART NUMBER	CERAMIC	CAP. VALUES (pF)	RATED VOLTAGE (kV_{DC})	RATED POWER (1) (kvar)	RATED CURRENT (A_{RMS})
TYPE 5FCA, 5DA, 5FEA					
5FCA3R0#	C0G (NP0)	3.0	5.0	2.3	1.5
5FCA5R0#		5.0		3.8	1.6
5FDA100#		10		4.2	2.3
5FEA200#		20		7.6	3.4
TYPE 5FCU, 5DU, 5FEU					
5FCU100#	U2J (N750)	10	5.0	2.3	1.5
5FDU200#		20		3.8	1.6
5FEU300#		30		4.0	2.0
5FEU400#		40		4.2	2.3
TYPE 5FFA, 5FGA, 5FHA					
5FFA3R0#	C0G (NP0)	3.0	5.0	2.3	1.5
5FFA5R0#		5.0		3.8	1.6
5FGA100#		10		4.2	2.3
5FHA200#		20		7.6	3.4
TYPE 5FFU, 5GU, 5FHU					
5FFU100#	U2J (N750)	10	5.0	2.3	1.5
5FGU200#		20		3.8	1.6
5FHU400#		40		4.2	2.3

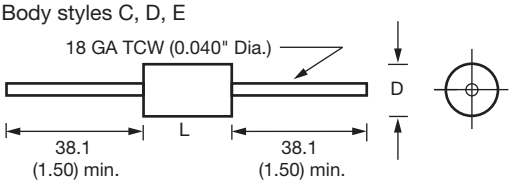
Notes

- # 8th digit of the part number: Capacitance tolerance code ± 0.25 pF = C, ± 0.5 pF = D, ± 5 % = J, ± 10 % = K

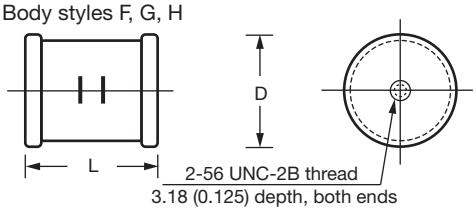
(1) At rated voltage. Data presented is based on a minimum body temperature rise of 30 °C at + 25 °C

DIMENSIONS in millimeters (inches)

Body styles C, D, E



Body styles F, G, H



PART NUMBER	BODY STYLE	DIAMETER D ± 0.79 (± 0.031) (mm/inches)	LENGTH L ± 0.79 (± 0.031) (mm/inches)
TYPE 5FCA, 5DA, 5FEA			
5FCA3R0#	C	6.35 (0.250)	25.4 (0.343)
5FCA5R0#			
5FDA100#	D	9.53 (0.375)	9.53 (0.375)
5FEA200#	E	12.7 (0.500)	11.1 (0.437)
TYPE 5FCU, 5DU, 5FEU			
5FCU100#	C	6.35 (0.250)	25.4 (0.343)
5FDU200#	D	9.53 (0.375)	9.53 (0.375)
5FEU300#	E	12.7 (0.500)	11.1 (0.437)
5FEU400#			
TYPE 5FFA, 5FGA, 5FHA			
5FFA3R0#	F	7.92 (0.312)	9.91 (0.390)
5FFA5R0#			
5FGA100#	G	11.1 (0.437)	10.7 (0.422)
5FHA200#	H	14.3 (0.562)	12.3 (0.484)
TYPE 5FFU, 5GU, 5FHU			
5FFU100#	F	7.92 (0.312)	9.91 (0.390)
5FGU200#	G	11.1 (0.437)	10.7 (0.422)
5FHU400#	H	14.3 (0.562)	12.3 (0.484)

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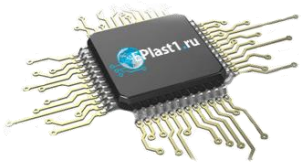
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