

RF Power Barrel Capacitors, Class 1 Ceramic



QUICK REFERENCE DATA

| DESCRIPTION | VALUE | |
|-----------------------|--|--|
| Ceramic Class | 1 | 1 |
| Ceramic Dielectric | NP0 (C0G) | N750 (U2J) |
| 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 | Axial or screw terminal | |

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, tin plated (style FF., FG., FH.)

Allowable torque: 0.34 Nm (3.0 lbf in)

FINISH

Capacitor body completely protective lacquered.

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

- NP0 (C0G)
- N750 (U2J)

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 M Ω (at 25 °C)

OPERATING TEMPERATURE RANGE

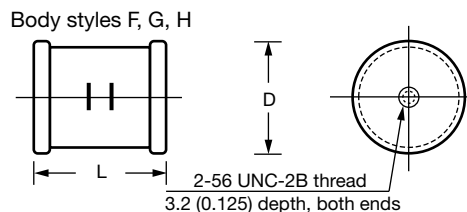
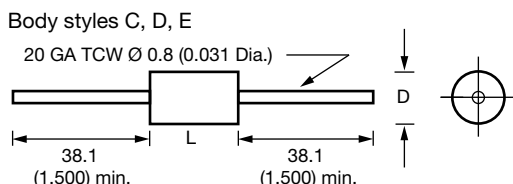
-55 °C to +100 °C

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# | NP0 (C0G) | 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# | N750 (U2J) | 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# | NP0 (C0G) | 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# | N750 (U2J) | 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)


| PART NUMBER | BODY STYLE | DIAMETER D ± 0.8 (± 0.031) mm (inches) | LENGTH L ± 0.8 (± 0.031) mm (inches) |
|-----------------------|------------|--|--|
| TYPE 5FCA, 5DA, 5FEA | | | |
| 5FCA3R0# | C | 6.4 (0.250) | 8.7 (0.343) |
| 5FCA5R0# | | | |
| 5FDA100# | D | 9.5 (0.375) | 9.5 (0.375) |
| 5FEA200# | E | 12.7 (0.500) | 11.1 (0.437) |
| TYPE 5FCU, 5DU, 5FEU | | | |
| 5FCU100# | C | 6.4 (0.250) | 8.7 (0.343) |
| 5FDU200# | D | 9.5 (0.375) | 9.5 (0.375) |
| 5FEU300# | E | 12.7 (0.500) | 11.1 (0.437) |
| 5FEU400# | | | |
| TYPE 5FFA, 5FGA, 5FHA | | | |
| 5FFA3R0# | F | 7.9 (0.312) | 9.9 (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 | 7.9 (0.312) | 9.9 (0.390) |
| 5FGU200# | G | 11.1 (0.437) | 10.7 (0.422) |
| 5FHU400# | H | 14.3 (0.562) | 12.3 (0.484) |

RELATED DOCUMENTS

General Information

www.vishay.com/doc?22071



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