**SNA Series**

**Overview**

The SNA series capacitors with double side metallized

carrier film with internal series connection and metalized

polypropylene film, polyester wrapping with epoxy

resin fill.

**Application:**

The SNA series is designed for snubber/pulse applications.

For high pulse and high frequency applications requiring

extremely reliable contacts e.g. IGBT-applications

**Benefits**

Self-healing

Very low dissipation factor

Very high ripple current

Internal series connection

Negative capacitance change versus temperature

**Construction**

Dielectric: Polypropylene (PP) film.

Capacitor electrodes: Double-sided metallized plastic film.

Protection: Polyester wrapping with epoxy resin fill.

Terminals: Tinned copper wire (lead-free).

Internal construction:



**Structure of ordering code**

**SNA – 1200 - 0.47 – 44 D**

**1 2 3 4 5**

**1** Series code

**2** Rated voltage: 1200 V

**3** Rated capacitance: 0.47 μF

**4** Length of capacitor

**5**  D for round axial, F for flat oval

**SNA Series**

Reference standards IEC 61071 , IEC 60068 , RoHS compliance.

Degree of protection IP00

Rated capacitance (CN) 0.047μF ... 6.8μF

Rated voltage (UNDC) 700V ... 3000V

Standard capacitance tolerance K: ±10% , J: ±5%

Dissipation factor tan δ (1kHz@20°C) ≤ 5.0 • 10-4

Test voltage between terminals UTT 1.5 UNDC , 10s

Test voltage between terminals and case UTC 4000 VAC, 10s

Insulation Resistance 30000s but need not exceed 30GW (typical value),

after 1 minute of electrification at 100Vdc (25 ± 5°C).

Self inductance ≤1nH/mm of capacitor and leads length used for connection

Operating temperature range (case) –40 °C ... +105°C

Storage temperature Θstg –40 °C ... +105 °C

Climatic category 40/105/56

Capacitance deviation in the operating Temperature range of -40 to +85 °C,±1.5%

max on capacitance value measured at +20 °C

Expected lifetime 100 000 h at UNDC @ Θhs 85°C

Capacitance drop at end of life -3% (typical)

Fit rate 50 (100 000 h at UNDC @ at Θhs 85°C)

**SNA Designs**



**SNA Series**

**UN 1200V Us 1800V Urms 500V**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Ordering code | Cn (μF) | DIMENSIONS (mm) | | | | | | du/dt  (V/μs) | Ipk (A) | Rs @100kHz (mΩ) | Imax 20kHz@70° (A) |
| Designs D | | Designs F | | | d |
| D | L | W | T | L |
| SNA-1200-0.15-32D | 0.15 | 15 | 32 |  |  |  | 1.0 | 1200 | 180 | 6.8 | 6 |
| SNA-1200-0.15-32F | 0.15 |  |  | 18 | 10 | 32 | 1.0 | 1200 | 180 | 6.8 | 6 |
| SNA-1200-0.22-32D | 0.22 | 17 | 32 |  |  |  | 1.0 | 1200 | 264 | 4.5 | 9 |
| SNA-1200-0.22-32F | 0.22 |  |  | 20 | 12 | 32 | 1.0 | 1200 | 264 | 4.5 | 9 |
| SNA-1200-0.33-32D | 0.33 | 20.5 | 32 |  |  |  | 1.2 | 1200 | 396 | 3.2 | 11 |
| SNA-1200-0.33-32F | 0.33 |  |  | 24.5 | 15 | 32 | 1.2 | 1200 | 396 | 3.2 | 11 |
| SNA-1200-0.47-44D | 0.47 | 19 | 44 |  |  |  | 1.0 | 830 | 390 | 4.4 | 11 |
| SNA-1200-0.47-44F | 0.47 |  |  | 22.5 | 14.5 | 44 | 1.0 | 830 | 390 | 4.4 | 11 |
| SNA-1200-0.68-44D | 0.68 | 22.5 | 44 |  |  |  | 1.2 | 830 | 564 | 3.2 | 12 |
| SNA-1200-0.68-44F | 0.68 |  |  | 26.5 | 17 | 44 | 1.2 | 830 | 564 | 3.2 | 12 |
| SNA-1200-1.0-44D | 1.0 | 27 | 44 |  |  |  | 1.2 | 830 | 830 | 2.4 | 12 |
| SNA-1200-1.0-44F | 1.0 |  |  | 32 | 21 | 44 | 1.2 | 830 | 830 | 2.4 | 12 |
| SNA-1200-1.5-57D | 1.5 | 27.5 | 57 |  |  |  | 1.2 | 520 | 780 | 2.8 | 12 |
| SNA-1200-1.5-57F | 1.5 |  |  | 32 | 21 | 57 | 1.2 | 520 | 780 | 2.8 | 12 |
| SNA-1200-2.0-57D | 2.0 | 31.5 | 57 |  |  |  | 1.2 | 520 | 1040 | 2.2 | 12 |
| SNA-1200-2.0-57F | 2.0 |  |  | 36 | 25 | 57 | 1.2 | 520 | 1040 | 2.2 | 12 |
| SNA-1200-2.5-57D | 2.5 | 35 | 57 |  |  |  | 1.2 | 520 | 1300 | 1.9 | 12 |
| SNA-1200-2.5-57F | 2.5 |  |  | 39.5 | 28.5 | 57 | 1.2 | 520 | 1300 | 1.9 | 12 |
| SNA-1200-3.0-57D | 3.0 | 38 | 57 |  |  |  | 1.2 | 520 | 1560 | 1.7 | 12 |
| SNA-1200-3.0-57F | 3.0 |  |  | 43.5 | 31 | 57 | 1.2 | 520 | 1560 | 1.7 | 12 |

(1) Maximum values at 100kHz, +60°C for case operating T= +85°C

(2) Typical values at 100kHz.