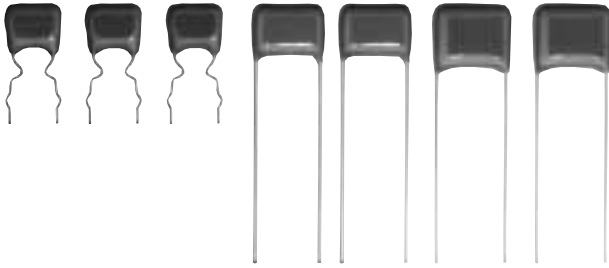


Type DSF Polyester Capacitors

Stacked Metallized Radial Leads



Subminiature Size

Type DSF film capacitors are made with stacked metallized polyester, resulting in high volumetric efficiency and a very economical solution for general purpose DC applications. Ideally suited for blocking, by-pass, coupling, decoupling, and filtering circuits. Specifically designed for applications where high density insertion of components is required. Ammo box style or reel taping available.

Specifications

Voltage Range: 50-100 Vdc (63 Vdc Optional)

Capacitance Range: .010-2.2 μ F

Capacitance Tolerance: \pm 5% (J) standard

Operating Temperature Range: -40 to + 85°C

Full rated voltage at 85°C-Derate linearly to 50% - rated voltage at 125°C

Dielectric Strength: Rated Vdc x 150 %, 60 sec.

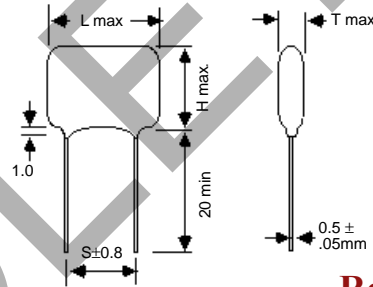
Dissipation Factor: 1% max (25°C, 1 kHz)

Insulation Resistance: C \leq 0.33 μ F : 3000M Ω min.

C > 0.33 μ F : 1000M Ω · μ F min.

Life Test: 1000 h @ 85 °C, 125% rated voltage

| Pulse Capability | | |
|-----------------------------------|------------------|------|
| Rated Volts | Body Length (mm) | |
| | 7.3, 7.5 | 10.2 |
| dV/dt volts per microsecond, max. | | |
| 50 | 32 - 37 | 12 |
| 100 | 55 | 43 |



| Lead Spacing | |
|--------------|-----|
| L | S |
| <10 | 5.0 |
| \geq 10 | 7.5 |

Ratings and Dimensions

RoHS Compliant

| Cap. (μ F) | Catalog Part Number | T Inches(mm) | H Inches(mm) | L Inches(mm) | S Inches(mm) |
|--------------------|------------------------|-----------------|-----------------|-----------------|-----------------|
| 50 Vdc | | | | | |
| 0.010 | DSF050J103 | 0.126 (3.2) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.012 | DSF050J123 | 0.126 (3.2) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.015 | DSF050J153 | 0.126 (3.2) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.018 | DSF050J183 | 0.126 (3.2) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.022 | DSF050J223 | 0.126 (3.2) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.027 | DSF050J273 | 0.126 (3.2) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.033 | DSF050J333 | 0.126 (3.2) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.039 | DSF050J393 | 0.126 (3.2) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.047 | DSF050J473 | 0.126 (3.2) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.056 | DSF050J563 | 0.126 (3.2) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.068 | DSF050J683 | 0.126 (3.2) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.082 | DSF050J823 | 0.142 (3.6) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.100 | DSF050J104 | 0.157 (4.0) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.120 | DSF050J124 | 0.157 (4.0) | 0.197 (5.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.150 | DSF050J154 | 0.173 (4.4) | 0.217 (5.5) | 0.287 (7.3) | 0.197 (5.0) |
| 0.180 | DSF050J184 | 0.177 (4.5) | 0.217 (5.5) | 0.287 (7.3) | 0.197 (5.0) |
| 0.220 | DSF050J224 | 0.189 (4.8) | 0.217 (5.5) | 0.287 (7.3) | 0.197 (5.0) |
| 0.270 | DSF050J274 | 0.181 (4.6) | 0.276 (7.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.330 | DSF050J334 | 0.205 (5.2) | 0.276 (7.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.390 | DSF050J394 | 0.224 (5.7) | 0.287 (7.3) | 0.287 (7.3) | 0.197 (5.0) |
| 0.470 | DSF050J474 | 0.236 (6.0) | 0.287 (7.3) | 0.287 (7.3) | 0.197 (5.0) |
| 0.560 | DSF050J564 | 0.228 (5.8) | 0.394 (10.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.680 | DSF050J684 | 0.256 (6.5) | 0.394 (10.0) | 0.287 (7.3) | 0.197 (5.0) |
| 0.820 | DSF050J824 | 0.268 (6.8) | 0.394 (10.0) | 0.287 (7.3) | 0.197 (5.0) |
| 1.000 | DSF050J105 | 0.315 (8.0) | 0.433 (11.0) | 0.287 (7.3) | 0.197 (5.0) |

| Cap. (μ F) | Catalog Part Number | T Inches(mm) | H In. (mm) | L Inches(mm) | S Inches(mm) |
|--------------------|------------------------|-----------------|---------------|-----------------|-----------------|
| 1.200 | DSF050J125 | 0.256 (6.5) | 0.394 (10.0) | 0.402 (10.2) | 0.295 (7.5) |
| 1.500 | DSF050J155 | 0.283 (7.2) | 0.394 (10.0) | 0.402 (10.2) | 0.295 (7.5) |
| 1.800 | DSF050J185 | 0.283 (7.2) | 0.472 (12.0) | 0.402 (10.2) | 0.295 (7.5) |
| 2.200 | DSF050J225 | 0.311 (7.9) | 0.472 (12.0) | 0.402 (10.2) | 0.295 (7.5) |
| 100 Vdc | | | | | |
| 0.010 | DSF100J103 | 0.126 (3.2) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.012 | DSF100J123 | 0.126 (3.2) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.015 | DSF100J153 | 0.126 (3.2) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.018 | DSF100J183 | 0.126 (3.2) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.022 | DSF100J223 | 0.126 (3.2) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.027 | DSF100J273 | 0.126 (3.2) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.033 | DSF100J333 | 0.126 (3.2) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.039 | DSF100J393 | 0.126 (3.2) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.047 | DSF100J473 | 0.126 (3.2) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.056 | DSF100J563 | 0.126 (3.2) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.068 | DSF100J683 | 0.157 (4.0) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.082 | DSF100J823 | 0.161 (4.1) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.100 | DSF100J104 | 0.177 (4.5) | 0.276 (7.0) | 0.295 (7.5) | 0.197 (5.0) |
| 0.120 | DSF100J124 | 0.130 (3.3) | 0.354 (9.0) | 0.402 (10.2) | 0.295 (7.5) |
| 0.150 | DSF100J154 | 0.130 (3.3) | 0.354 (9.0) | 0.402 (10.2) | 0.295 (7.5) |
| 0.180 | DSF100J184 | 0.142 (3.6) | 0.354 (9.0) | 0.402 (10.2) | 0.295 (7.5) |
| 0.220 | DSF100J224 | 0.157 (4.0) | 0.354 (9.0) | 0.402 (10.2) | 0.295 (7.5) |
| 0.270 | DSF100J274 | 0.165 (4.2) | 0.354 (9.0) | 0.402 (10.2) | 0.295 (7.5) |
| 0.330 | DSF100J334 | 0.189 (4.8) | 0.394 (10.0) | 0.402 (10.2) | 0.295 (7.5) |
| 0.390 | DSF100J394 | 0.217 (5.5) | 0.394 (10.0) | 0.402 (10.2) | 0.295 (7.5) |
| 0.470 | DSF100J474 | 0.268 (6.8) | 0.413 (10.5) | 0.402 (10.2) | 0.295 (7.5) |

Type DSF Polyester Capacitors

DSF
Dipped
Stacked
Film
Type

050
Voltage
Code
050 = 50 Vdc
100 = 100 Vdc

J
Capacitance
Tolerance
J = ±5%

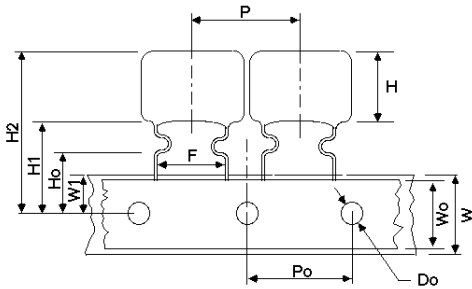
223
Nominal
Capacitance
(First two digits are significant
figures. Last digit is multiplier
to give cap in pF)
e.g. 223 = 22 X 10³ pF = .022 μF
104 = 10 X 10⁴ pF = .100 μF
155 = 15 X 10⁵ pF = 1.50 μF

C
Bulk and Ammo
Packaging Options
Blank = Straight lead, Bulk
C = Crimped, Bulk
CA = Crimped Lead, Ammo Pack
TA = Straight Lead, Ammo Pack

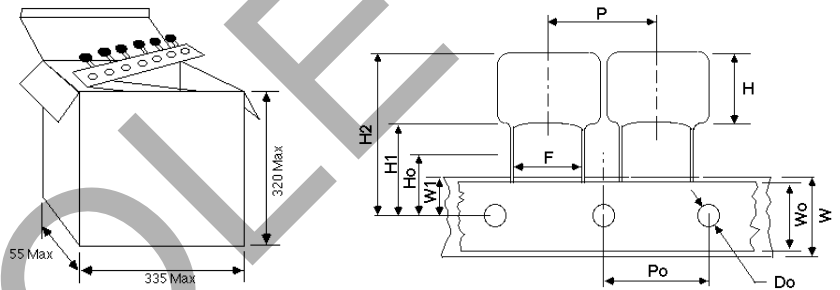
*Tape & Reel packaging available.
Contact us for detailed specs.*

Ammo Pack Options

Crimped Lead Ammo Pack Option (CA)



Straight Lead Ammo Pack Option (TA)



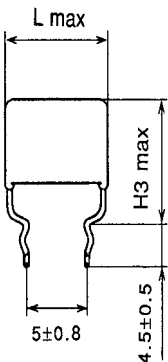
| PACKAGE QUANTITY FOR AMMO PACK CRIMPED LEAD OPTION (CA) & (CR) | | |
|---|-------------------|----------|
| WVDC | Capacitance Range | Quantity |
| 50 | 0.01 - 0.12 | 2000 |
| | 0.15 - 2.2 | 1000 |
| 100 | 0.01 - 0.068 | 2000 |
| | 0.082 - 0.1 | 1000 |
| | 0.12 - 0.22 | 2000 |
| | 0.27 - 0.47 | 1000 |

| PACKAGE QUANTITY FOR AMMO PACK STRAIGHT LEAD OPTION (TA) & (TR) | | |
|--|-------------------|----------|
| WVDC | Capacitance Range | Quantity |
| 50 | 0.01 - 0.12 | 2000 |
| | 0.15 to 1.0 | 1000 |
| 100 | 0.01 - 0.068 | 2000 |
| | 0.082 - 0.1 | 1000 |

Bulk Cut & Crimp Styles

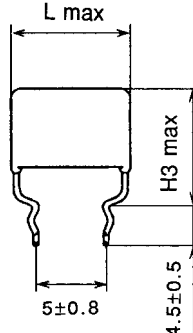
Crimp style depends on capacitor length.

$L \leq 10.0$ mm



| WVDC | H3 max. (mm) |
|------|--------------|
| 50 | H+4.5 |
| 100 | H+5.0 |

$L > 10.0$ mm



| AMMO PACK TAPING SPECIFICATIONS | | | |
|------------------------------------|--|--|--------------|
| | Dimensions for Crimped Option (CA) | Dimensions for Straight Lead Option (TA) | Tol. (mm) |
| Lead Spacing (F) | 5.0 | 5.0 | +8/-2 |
| Capacitor Pitch (P) | 12.7 | 12.7 | ±1 |
| Feed Hole Pitch (Po) | 12.7 | 12.7 | ±2 |
| Carrier Width (W) | 18.0 | 18.0 | ±5 |
| Feed Hole Position (W1) | 9.0 | 9.0 | ±5 |
| Height of Seating Plane (H1) | 20.0 | 20.0 | ±5 |
| Lead Wire Clinch Height (Ho) | 16.0 | --- | ±5 |
| Feed Hole Diameter (Do) | 4.0 | 4.0 | ±2 |
| Case Top to Feed Hole (H2) Max. | 20.5 + Hmax | 20.5 + Hmax | Max. |

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OBSOLETE