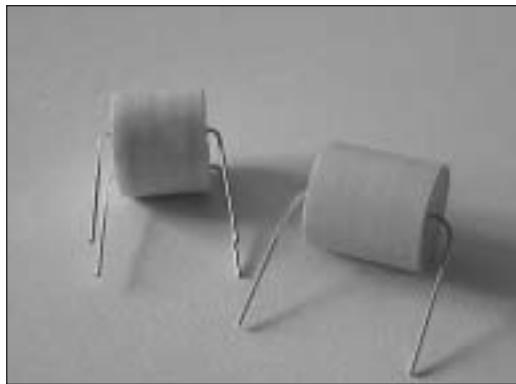


# Medium Power Film Capacitors



FSV



## GENERAL DESCRIPTION

Metallized dielectric capacitor and metal foil, low serial inductance and high RMS current.

## APPLICATIONS

- Protection of semi conductors
- High frequency decoupling
- Tuning

## PACKAGING

- Cylindrical with polyester tape wrapping, sealed with polyurethane resin
- Radial connections

## ELECTRICAL CHARACTERISTICS

|  |  |
|--|--|
| Capacitance Range Cn                     | 0.010µF to 0.15µF  |
| Tolerance on Cn                          | 10%  |
| Rated DC Voltage Vndc                    | 600 to 2000 V  |
| Rated AC Voltage                         | 300 to 650 Vrms  |
| Test Voltage<br>between terminals @ 25°C | 1.5 Vndc during 10s  |
| High dV/dt                               | 10000 V/µs   |
| RMS Current                              | Irms max = up to 23A<br>The currents shown in the tables are maximum.<br>It is necessary to respect the thermal limits of the dielectric 85°C<br>See "Hot spot temperature calculation"  |
| Working Temperature                      | -40°C +85°C<br>(according to the power to be dissipated)   |
| Climatic Category                        | 40/085/56 (IEC 60068)  |
| <b>Hot Spot Calculation</b>              | For all applications, the temperature in the hot spot capacitor must be lower than 85°C<br>$\Theta_{\text{Hot spot}} = \Theta_{\text{ambient}} + (\tan\delta_0 \times Q + R_s Irms^2) \times R_{th}$<br>With $\tan\delta_0 = 2.10^{-4}$<br>Q in vars R <sub>s</sub> in Ω Irms in A R <sub>th</sub> in °C/W |

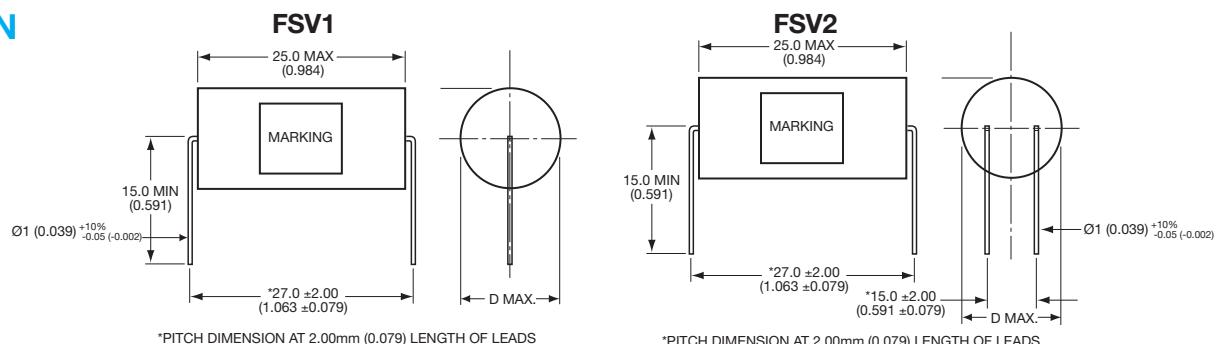
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**FSV**

**PROTECTION**

## DESIGN



| References   | Capacitance<br>( $\mu$ F) | D max.<br>mm (in) | Irms<br>A | Rs<br>(m $\Omega$ ) | Rth<br>°C/W |
|--|---------------------------|-------------------|-----------|---------------------|-------------|
| <b>FSV 600 V</b> <b>Vndc = 600V</b> <b>Vrms = 300V</b>   |                           |                   |           |                     |             |
| FSV16K0683K--  | 0.068                     | 22 (0.866)        | 10        | 2.5                 | 35          |
| FSV26K0104K--  | 0.10                      | 25 (0.984)        | 15        | 2.1                 | 25          |
| FSV26K0154K--  | 0.15                      | 30 (1.181)        | 23        | 1.8                 | 17          |
| <b>FSV 800 V</b> <b>Vndc = 800V</b> <b>Vrms = 400V</b>   |                           |                   |           |                     |             |
| FSV16B0473K--  | 0.047                     | 22 (0.866)        | 10        | 2.6                 | 33          |
| FSV26B0683K--  | 0.068                     | 25 (0.984)        | 15        | 2.2                 | 23          |
| FSV26B0823K--  | 0.082                     | 28 (1.102)        | 18        | 2.1                 | 21          |
| FSV26B0104K--  | 0.100                     | 30 (1.181)        | 23        | 1.9                 | 16          |
| <b>FSV 1000 V</b> <b>Vndc = 1000V</b> <b>Vrms = 450V</b> |                           |                   |           |                     |             |
| FSV16L0333K--  | 0.033                     | 22 (0.866)        | 8         | 2.8                 | 31          |
| FSV26L0473K--  | 0.047                     | 25 (0.984)        | 12        | 2.3                 | 22          |
| FSV26L0683K--  | 0.068                     | 30 (1.181)        | 17        | 2.0                 | 16          |
| <b>FSV 1200 V</b> <b>Vndc = 1200V</b> <b>Vrms = 500V</b> |                           |                   |           |                     |             |
| FSV16U0223K--  | 0.022                     | 22 (0.866)        | 7         | 3.2                 | 34          |
| FSV26U0333K--  | 0.033                     | 25 (0.984)        | 10        | 2.2                 | 23          |
| FSV26U0473K--  | 0.047                     | 30 (1.181)        | 14        | 2.1                 | 16          |
| <b>FSV 1500 V</b> <b>Vndc = 1500V</b> <b>Vrms = 600V</b> |                           |                   |           |                     |             |
| FSV16R0153K--  | 0.015                     | 22 (0.866)        | 5         | 3.5                 | 34          |
| FSV26R0223K--  | 0.022                     | 25 (0.984)        | 8         | 2.8                 | 22          |
| FSV26R0333K--  | 0.033                     | 30 (1.181)        | 12        | 2.2                 | 16          |
| <b>FSV 2000 V</b> <b>Vndc = 2000V</b> <b>Vrms = 650V</b> |                           |                   |           |                     |             |
| FSV16N0103K--  | 0.010                     | 22 (0.866)        | 5         | 3.4                 | 34          |
| FSV26N0153K--  | 0.015                     | 25 (0.984)        | 7         | 2.9                 | 21          |
| FSV26N0203K--  | 0.020                     | 27 (1.063)        | 10        | 2.4                 | 16          |
| FSV26N0223K--  | 0.022                     | 30 (1.181)        | 11        | 2.4                 | 14          |