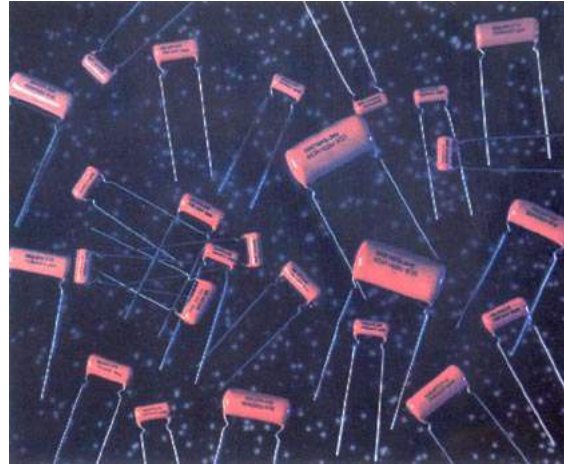


# Type PS, Orange Drop<sup>®</sup>, Polypropylene Film Capacitors

---

## Features

- Radial-lead. Non-inductively wound, extended foil construction.
- Long established distribution series.



## Specifications

### Capacitance Range:

.001 to .5  $\mu\text{F}$

### Capacitance Tolerance:

$\pm 10\%$

### Voltage Ratings:

200 to 2000 Volts D-C

140 to 500 Volts A-C

### Operating Temperature Range:

$-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  (at full voltage)

### Voltage Derating:

Units rated 200 thru 1000 VDC:

at  $+105^{\circ}\text{C}$ , 70% of  $+85^{\circ}\text{C}$  rating.

at  $+125^{\circ}\text{C}$ , 50% of  $+85^{\circ}\text{C}$  rating.

Units rated 1600 and 2000 VDC:

at  $+105^{\circ}\text{C}$ , 50% of  $+85^{\circ}\text{C}$  rating.

### Lead Wire:

Tinned copper-clad steel.

0.032 (0.8) diameter, #20 AWG

### Insulation Resistance:

At  $+25^{\circ}\text{C}$  the minimum product of insulation resistance, expressed in megohms, and capacitance, expressed in microfarads, shall be  $5000 \text{ M}\Omega\text{-}\mu\text{F}$

### Dissipation Factor:

Units rated 200 thru 1000 VDC:

0.75% Maximum

Units rated 1600 and 2000 VDC:

0.1% Maximum

### Encapsulation:

Conformal coating of orange, flame retardant epoxy. Meets minimum of UL94V-0 specifications.

### Dielectric/Construction:

Units rated 200 thru 1000 VDC:

Polyester film, single section design, non-inductively wound with extended foil.

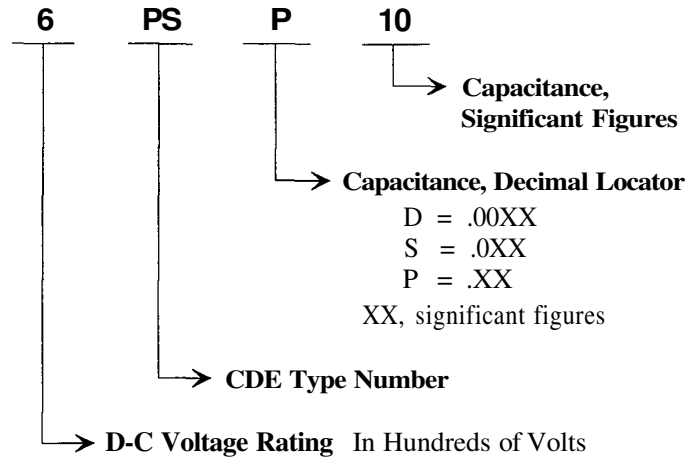
However, the exception is part # 6PSP47 which is a metallized polyester film design.

Units rated 1600 and 2000 VDC:

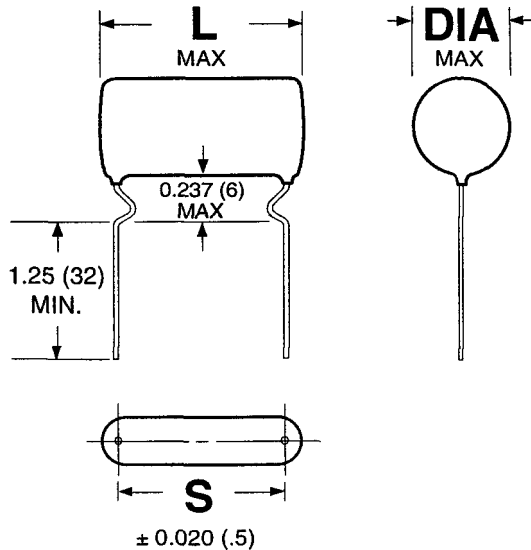
Polypropylene film, non-inductively wound, series section design with extended foil and utilizing a floating common of metallized polypropylene film.

# Type PS, Orange Drop®, Polypropylene Film Capacitors

## Ordering/Part Number Information



## Dimensions



## Standard Marking Format

Marking	Description
CDE	CDE Electronics identification
CDE 6PS-P10	6PS-P10 Part number
104K600V 9810	600V D-C Voltage rating, Volts
	104K Capacitance and EIA tolerance code*
	9810 Weekly date code (i.e. 10th week of 1998)

\* Capacitance code expressed in picofarads, first two digits are the significant figures, the third is the number of zeros following (i.e. 104 = 100000pF = .1 μF). EIA tolerance code: K = ±10%.

**Note:** The PS series was primarily designed for DC applications. If you require additional technical data or application information for an AC application we suggest you contact us.

# Type PS, Orange Drop®, Polypropylene Film Capacitors

## Type PS Standard Sizes/Ratings

Value, $\mu$ F	Part # <sup>1</sup>	L MAX	DIA MAX	S	Value, $\mu$ F	Part # <sup>1</sup>	L MAX	DIA MAX	S
<b>200 VDC / 140 VAC*</b>					<b>600 VDC / 200 VAC*</b>				
.02	2PSS20	.70 (17.8)	.33 (8.4)	.500 (12.7)	.003	6PSD30	.70 (17.8)	.35 (8.9)	.500 (12.7)
.022	2PSS22	.70 (17.8)	.33 (8.4)	.500 (12.7)	.0033	6PSD33	.70 (17.8)	.35 (8.9)	.500 (12.7)
.047	2PSS47	.90 (22.9)	.38 (9.7)	.688 (17.5)	.0039	6PSD39	.70 (17.8)	.38 (9.7)	.500 (12.7)
.05	2PSS50	.90 (22.9)	.38 (9.7)	.688 (17.5)	.004	6PSD40	.70 (17.8)	.38 (9.7)	.500 (12.7)
.1	2PSP10	1.20 (30.5)	.40 (10.2)	.969 (24.6)	.0047	6PSD47	.70 (17.8)	.38 (9.7)	.500 (12.7)
.15	2PSP15	1.20 (30.5)	.45 (11.4)	.969 (24.6)	.005	6PSD50	.70 (17.8)	.38 (9.7)	.500 (12.7)
.2	2PSP20	1.20 (30.5)	.50 (12.7)	.969 (24.6)	.0056	6PSD56	.70 (17.8)	.40 (10.2)	.500 (12.7)
.22	2PSP22	1.20 (30.5)	.50 (12.7)	.969 (24.6)	.006	6PSD60	.70 (17.8)	.40 (10.2)	.500 (12.7)
.25	2PSP25	1.20 (30.5)	.50 (12.7)	.969 (24.6)	.0068	6PSD68	.70 (17.8)	.40 (10.2)	.500 (12.7)
.33	2PSP33	1.60 (40.6)	.47 (11.9)	1.344 (34.1)	.0075	6PSD75	.70 (17.8)	.40 (10.2)	.500 (12.7)
.47	2PSP47	1.60 (40.6)	.55 (14.0)	1.344 (34.1)	.008	6PSD80	.90 (22.9)	.40 (10.2)	.688 (17.5)
.5	2PSP50	1.60 (40.6)	.55 (14.0)	1.344 (34.1)	.0082	6PSD82	.90 (22.9)	.40 (10.2)	.688 (17.5)
<b>400 VDC / 200 VAC*</b>					.01	6PSS10	.90 (22.9)	.40 (10.2)	.688 (17.5)
.01	4PSS10	.70 (17.8)	.35 (8.9)	.500 (12.7)	.012	6PSS12	.90 (22.9)	.40 (10.2)	.688 (17.5)
.015	4PSS15	.70 (17.8)	.38 (9.7)	.500 (12.7)	.015	6PSS15	.90 (22.9)	.40 (10.2)	.688 (17.5)
.02	4PSS20	.90 (22.9)	.38 (9.7)	.688 (17.5)	.02	6PSS20	.90 (22.9)	.45 (11.4)	.688 (17.5)
.022	4PSS22	.90 (22.9)	.38 (9.7)	.688 (17.5)	.022	6PSS22	.90 (22.9)	.45 (11.4)	.688 (17.5)
.025	4PSS25	.90 (22.9)	.40 (10.2)	.688 (17.5)	.025	6PSS25	.90 (22.9)	.45 (11.4)	.688 (17.5)
.03	4PSS30	.90 (22.9)	.40 (10.2)	.688 (17.5)	.027	6PSS27	1.20 (30.5)	.45 (11.4)	.969 (24.6)
.033	4PSS33	.90 (22.9)	.40 (10.2)	.688 (17.5)	.03	6PSS30	1.20 (30.5)	.45 (11.4)	.969 (24.6)
.04	4PSS40	1.20 (30.5)	.40 (10.2)	.969 (24.6)	.033	6PSS33	1.20 (30.5)	.45 (11.4)	.969 (24.6)
.047	4PSS47	1.20 (30.5)	.40 (10.2)	.969 (24.6)	.035	6PSS35	1.20 (30.5)	.45 (11.4)	.969 (24.6)
.05	4PSS50	1.20 (30.5)	.40 (10.2)	.969 (24.6)	.039	6PSS39	1.20 (30.5)	.55 (14.0)	.969 (24.6)
.056	4PSS56	1.20 (30.5)	.45 (11.4)	.969 (24.6)	.04	6PSS40	1.20 (30.5)	.55 (14.0)	.969 (24.6)
.068	4PSS68	1.20 (30.5)	.45 (11.4)	.969 (24.6)	.047	6PSS47	1.20 (30.5)	.55 (14.0)	.969 (24.6)
.075	4PSS75	1.20 (30.5)	.45 (11.4)	.969 (24.6)	.05	6PSS50	1.20 (30.5)	.55 (14.0)	.969 (24.6)
.1	4PSP10	1.20 (30.5)	.52 (13.2)	.969 (24.6)	.056	6PSS56	1.20 (30.5)	.60 (15.2)	.969 (24.6)
.15	4PSP15	1.20 (30.5)	.57 (14.5)	.969 (24.6)	.06	6PSS60	1.20 (30.5)	.60 (15.2)	.969 (24.6)
.2	4PSP20	1.60 (40.6)	.60 (15.2)	1.344 (34.1)	.068	6PSS68	1.20 (30.5)	.60 (15.2)	.969 (24.6)
.22	4PSP22	1.60 (40.6)	.60 (15.2)	1.344 (34.1)	.075	6PSS75	1.20 (30.5)	.60 (15.2)	.969 (24.6)
.25	4PSP25	1.60 (40.6)	.65 (16.5)	1.344 (34.1)	.082	6PSS82	1.20 (30.5)	.65 (16.5)	.969 (24.6)
<b>600 VDC / 200 VAC*</b>					.1	6PSP10	1.20 (30.5)	.65 (16.5)	.969 (24.6)
.001	6PSD10	.70 (17.8)	.30 (7.6)	.500 (12.7)	.15	6PSP15	1.60 (40.6)	.70 (17.8)	1.344 (34.1)
.0012	6PSD12	.70 (17.8)	.33 (8.4)	.500 (12.7)	.2	6PSP20	1.60 (40.6)	.80 (20.3)	1.344 (34.1)
.0015	6PSD15	.70 (17.8)	.33 (8.4)	.500 (12.7)	.22	6PSP22	1.60 (40.6)	.80 (20.3)	1.344 (34.1)
.0018	6PSD18	.70 (17.8)	.33 (8.4)	.500 (12.7)	.25	6PSP25	1.60 (40.6)	.80 (20.3)	1.344 (34.1)
.002	6PSD20	.70 (17.8)	.33 (8.4)	.500 (12.7)	.33	6PSP33	1.81 (46.0)	.89 (22.6)	1.531 (38.9)
.0022	6PSD22	.70 (17.8)	.33 (8.4)	.500 (12.7)	.47	6PSP47	1.50 (38.1)	See note below	1.344 (34.1)
.0025	6PSD25	.70 (17.8)	.35 (8.9)	.500 (12.7)					
.0027	6PSD27	.70 (17.8)	.35 (8.9)	.500 (12.7)					

\* 60 Hz, RMS

<sup>1</sup> Shaded part numbers above are standard stock items available through the Sprague/Vishay Distribution Network. Any other part number may be ordered as a special.

Note: 6PSP47 has a pressed profile, therefore the physical body dimensions are: **T** MAX = .51 (13.0) and **H** MAX = .76 (19.3)

# Type PS, Orange Drop<sup>®</sup>, Polypropylene Film Capacitors

## Type PS Standard Sizes/Ratings

Value, $\mu$ F	Part # <sup>1</sup>	L MAX	DIA MAX	S	Value, $\mu$ F	Part # <sup>1</sup>	L MAX	DIA MAX	S
<b>1000 VDC / 200 VAC*</b>					<b>1600 VDC / 475 VAC*</b>				
.001	10PSD10	.70 (17.8)	.33 (8.4)	.500 (12.7)	.005	16PSD50	1.30 (33.0)	.50 (12.7)	.969 (24.6)
.0015	10PSD15	.70 (17.8)	.33 (8.4)	.500 (12.7)	.006	16PSD60	1.30 (33.0)	.55 (14.0)	.969 (24.6)
.002	10PSD20	.70 (17.8)	.35 (8.9)	.500 (12.7)	.0068	16PSD68	1.30 (33.0)	.55 (14.0)	.969 (24.6)
.0022	10PSD22	.70 (17.8)	.35 (8.9)	.500 (12.7)	.007	16PSD70	1.30 (33.0)	.55 (14.0)	.969 (24.6)
.0033	10PSD33	.90 (22.9)	.35 (8.9)	.688 (17.5)	.0075	16PSD75	1.30 (33.0)	.55 (14.0)	.969 (24.6)
.004	10PSD40	.90 (22.9)	.40 (10.2)	.688 (17.5)	.008	16PSD80	1.30 (33.0)	.60 (15.2)	.969 (24.6)
.005	10PSD50	.90 (22.9)	.40 (10.2)	.688 (17.5)	.01	16PSS10	1.30 (33.0)	.60 (15.2)	.969 (24.6)
.0068	10PSD68	.90 (22.9)	.43 (10.9)	.688 (17.5)	.015	16PSS15	1.30 (33.0)	.65 (16.5)	.969 (24.6)
.01	10PSS10	.90 (22.9)	.48 (12.2)	.688 (17.5)	.018	16PSS18	1.70 (43.2)	.65 (16.5)	1.344 (34.1)
.015	10PSS15	1.20 (30.5)	.48 (12.2)	.969 (24.6)	.02	16PSS20	1.70 (43.2)	.65 (16.5)	1.344 (34.1)
.022	10PSS22	1.20 (30.5)	.58 (14.7)	.969 (24.6)	.022	16PSS22	1.70 (43.2)	.65 (16.5)	1.344 (34.1)
.033	10PSS33	1.20 (30.5)	.65 (16.5)	.969 (24.6)	.03	16PSS30	1.70 (43.2)	.75 (19.1)	1.344 (34.1)
.039	10PSS39	1.60 (40.6)	.65 (16.5)	1.344 (34.1)	.033	16PSS33	1.70 (43.2)	.75 (19.1)	1.344 (34.1)
.047	10PSS47	1.60 (40.6)	.65 (16.5)	1.344 (34.1)	.039	16PSS39	1.70 (43.2)	.85 (21.6)	1.344 (34.1)
.056	10PSS56	1.60 (40.6)	.75 (19.1)	1.344 (34.1)	.04	16PSS40	1.70 (43.2)	.85 (21.6)	1.344 (34.1)
.068	10PSS68	1.60 (40.6)	.75 (19.1)	1.344 (34.1)	.047	16PSS47	1.70 (43.2)	.85 (21.6)	1.344 (34.1)
.1	10PSP10	1.60 (40.6)	.85 (21.6)	1.344 (34.1)	.05	16PSS50	1.70 (43.2)	.85 (21.6)	1.344 (34.1)
<b>1600 VDC / 475 VAC*</b>					<b>2000 VDC / 500 VAC*</b>				
.001	16PSD10	1.30 (33.0)	.50 (12.7)	.969 (24.6)	.001	20PSD10	1.30 (33.0)	.50 (12.7)	.969 (24.6)
.0015	16PSD15	1.30 (33.0)	.50 (12.7)	.969 (24.6)	.0015	20PSD15	1.30 (33.0)	.50 (12.7)	.969 (24.6)
.002	16PSD20	1.30 (33.0)	.50 (12.7)	.969 (24.6)	.0022	20PSD22	1.30 (33.0)	.50 (12.7)	.969 (24.6)
.0022	16PSD22	1.30 (33.0)	.50 (12.7)	.969 (24.6)	.0033	20PSD33	1.30 (33.0)	.55 (14.0)	.969 (24.6)
.003	16PSD30	1.30 (33.0)	.50 (12.7)	.969 (24.6)	.0047	20PSD47	1.30 (33.0)	.60 (15.2)	.969 (24.6)
.0033	16PSD33	1.30 (33.0)	.50 (12.7)	.969 (24.6)	.0056	20PSD56	1.30 (33.0)	.65 (16.5)	.969 (24.6)
.0039	16PSD39	1.30 (33.0)	.50 (12.7)	.969 (24.6)	.0068	20PSD68	1.30 (33.0)	.65 (16.5)	.969 (24.6)
.004	16PSD40	1.30 (33.0)	.50 (12.7)	.969 (24.6)	.0082	20PSD82	1.30 (33.0)	.70 (17.8)	.969 (24.6)
.0047	16PSD47	1.30 (33.0)	.50 (12.7)	.969 (24.6)	.027	20PSS27	1.70 (43.2)	.95 (24.1)	1.344 (34.1)

\* 60 Hz, RMS

<sup>1</sup> Shaded part numbers above are standard stock items available through the Sprague/Vishay Distribution Network. Any other part number may be ordered as a special.

**Notice and Disclaimer:** All product drawings, descriptions, specifications, statements, information and data (collectively, the "Information") in this datasheet or other publication are subject to change. The customer is responsible for checking, confirming and verifying the extent to which the Information contained in this datasheet or other publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without any guarantee, warranty, representation or responsibility of any kind, expressed or implied. Statements of suitability for certain applications are based on the knowledge that the Cornell Dubilier company providing such statements ("Cornell Dubilier") has of operating conditions that such Cornell Dubilier company regards as typical for such applications, but are not intended to constitute any guarantee, warranty or representation regarding any such matter – and Cornell Dubilier specifically and expressly disclaims any guarantee, warranty or representation concerning the suitability for a specific customer application, use, storage, transportation, or operating environment. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by Cornell Dubilier with reference to the use of any Cornell Dubilier products is given gratis (unless otherwise specified by Cornell Dubilier), and Cornell Dubilier assumes no obligation or liability for the advice given or results obtained. Although Cornell Dubilier strives to apply the most stringent quality and safety standards regarding the design and manufacturing of its products, in light of the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies or other appropriate protective measures) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage. Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated in such warnings, cautions and notes, or that other safety measures may not be required.