

Metallized Polyester Film Capacitors, Wrap-and-Fill



FEATURES

- Economical
- Extensive standard ratings
- Rugged construction
- Small size
- Compliant to RoHS directive 2002/95/EC


RoHS
COMPLIANT

PERFORMANCE CHARACTERISTICS

Operating Temperature: - 55 °C to + 85 °C

Capacitance Range: 0.0047 μF to 10.0 μF

Capacitance Tolerance: ± 20 %, ± 10 %, ± 5 %

DC Voltage Rating: 50 WVDC to 600 WVDC

Dissipation Factor: 1.0 % maximum

Voltage Test: 200 % of rated voltage for 2 min

Insulation Resistance:

At + 25 °C: 25 000 MΩ/μF or 50 000 MΩ minimum

At + 85 °C: 1000 MΩ/μF or 2500 MΩ minimum

Vibration Test (Condition B):

No mechanical damage, short, open or intermittent circuits.

DC Life Test: 125 % of rated voltage for 250 h at + 85 °C. No open or short circuits. No visible damage. Maximum Δ CAP = ± 10 %
Minimum IR = 50 % of initial limit
Maximum DF = 1.25 %

Humidity Test: 95 % relative humidity at + 40 °C for 250 h. No visible damage. Maximum Δ CAP ± 10 %
Minimum IR = 20 % of initial limit
Maximum DF = 2.0 %

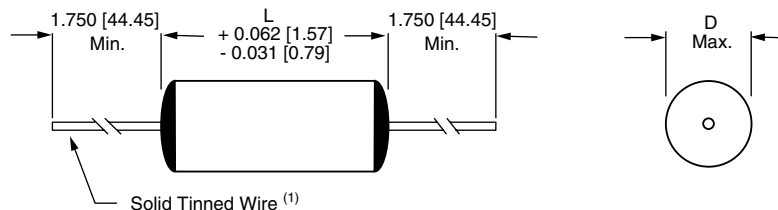
PHYSICAL CHARACTERISTICS

Lead Pull: 5 lb (2.3 kg) for one min. No physical damage.

Lead Bend: After three complete consecutive bends, no damage.

Marking: Sprague® trademark, type or part number, capacitance and voltage.

DIMENSIONS in inches (millimeters)



Note

(1) Lead size: D Max. < 0.270 [6.86] 0.025 [0.64] (No. 22 AWG). D Max ≥ 0.270 [6.86] 0.032 [0.81] (No. 20 AWG). Leads to be within ± 0.062" [1.57 mm] of center line at egress but not less than 0.031" [0.79 mm] from edge.

STANDARD RATINGS in inches [millimeters]

CAPACITANCE (μF)	PART NUMBER		CASE SIZE		LEAD AWG NO.
	± 10 % TOLERANCE	± 5 % TOLERANCE	D	L	
50 WVDC					
0.12	V-430P124X9050	V-430P124X5050	0.196 [4.98]	0.625 [15.88]	22
0.15	V-430P154X9050	V-430P154X5050	0.210 [5.33]	0.625 [15.88]	22
0.18	V-430P184X9050	V-430P184X5050	0.223 [5.66]	0.625 [15.88]	22
0.22	V-430P224X9050	V-430P224X5050	0.240 [6.10]	0.625 [15.88]	22
0.27	V-430P274X9050	V-430P274X5050	0.258 [6.55]	0.625 [15.88]	22
0.33	V-430P334X9050	V-430P334X5050	0.279 [7.09]	0.625 [15.88]	20
0.39	V-430P394X9050	V-430P394X5050	0.250 [6.35]	0.750 [19.05]	22
0.47	V-430P474X9050	V-430P474X5050	0.269 [6.83]	0.750 [19.05]	22
0.56	V-430P564X9050	V-430P564X5050	0.288 [7.32]	0.750 [19.05]	20
0.68	V-430P684X9050	V-430P684X5050	0.311 [7.90]	0.750 [19.05]	20
0.82	V-430P824X9050	V-430P824X5050	0.270 [6.86]	1.000 [25.40]	20



STANDARD RATINGS in inches [millimeters]						
CAPACITANCE (μ F)	PART NUMBER		CASE SIZE		LEAD AWG NO.	
	\pm 10 % TOLERANCE	\pm 5 % TOLERANCE	D	L		
50 WVDC						
1.0	V-430P105X9050	V-430P105X5050	0.291 [7.39]	1.000 [25.40]	20	
1.5	V-430P155X9050	V-430P155X5050	0.344 [8.74]	1.000 [25.40]	20	
2.0	V-430P205X9050	V-430P205X5050	0.400 [10.16]	1.000 [25.40]	20	
2.5	V-430P255X9050	V-430P255X5050	0.438 [11.13]	1.000 [25.40]	20	
3.0	V-430P305X9050	V-430P305X5050	0.398 [10.11]	1.250 [31.75]	20	
4.0	V-430P405X9050	V-430P405X5050	0.434 [11.02]	1.500 [38.10]	20	
5.0	V-430P505X9050	V-430P505X5050	0.476 [12.09]	1.500 [38.10]	20	
6.0	V-430P605X9050	V-430P605X5050	0.515 [13.08]	1.500 [38.10]	20	
7.0	V-430P705X9050	V-430P705X5050	0.551 [14.00]	1.500 [38.10]	20	
10.0	V-430P106X9050	V-430P106X5050	0.647 [16.43]	1.500 [38.10]	20	
100 WVDC						
0.082	V-430P823X9100	V-430P823X5100	0.192 [4.88]	0.625 [15.88]	22	
0.1	V-430P104X9100	V-430P104X5100	0.204 [5.18]	0.625 [15.88]	22	
0.12	V-430P124X9100	V-430P124X5100	0.216 [5.49]	0.625 [15.88]	22	
0.15	V-430P154X9100	V-430P154X5100	0.233 [5.92]	0.625 [15.88]	22	
0.18	V-430P184X9100	V-430P184X5100	0.213 [5.41]	0.750 [19.05]	22	
0.22	V-430P224X9100	V-430P224X5100	0.228 [5.79]	0.750 [19.05]	22	
0.27	V-430P274X9100	V-430P274X5100	0.245 [6.22]	0.750 [19.05]	22	
0.33	V-430P334X9100	V-430P334X5100	0.264 [6.71]	0.750 [19.05]	22	
0.39	V-430P394X9100	V-430P394X5100	0.230 [5.84]	1.000 [25.40]	22	
0.47	V-430P474X9100	V-430P474X5100	0.246 [6.25]	1.000 [25.40]	22	
0.56	V-430P564X9100	V-430P564X5100	0.262 [6.65]	1.000 [25.40]	22	
0.68	V-430P684X9100	V-430P684X5100	0.283 [7.19]	1.000 [25.40]	20	
0.82	V-430P824X9100	V-430P824X5100	0.265 [6.73]	1.250 [31.75]	22	
1.0	V-430P105X9100	V-430P105X5100	0.286 [7.26]	1.250 [31.75]	20	
1.5	V-430P155X9100	V-430P155X5100	0.351 [8.92]	1.250 [31.75]	20	
2.0	V-430P205X9100	V-430P205X5100	0.393 [9.98]	1.250 [31.75]	20	
2.5	V-430P255X9100	V-430P255X5100	0.430 [10.92]	1.250 [31.75]	20	
3.0	V-430P305X9100	V-430P305X5100	0.464 [11.79]	1.250 [31.75]	20	
4.0	V-430P405X9100	V-430P405X5100	0.494 [12.55]	1.500 [38.10]	20	
5.0	V-430P505X9100	V-430P505X5100	0.544 [13.82]	1.500 [38.10]	20	
6.0	V-430P605X9100	V-430P605X5100	0.591 [15.01]	1.500 [38.10]	20	
7.0	V-430P705X9100	V-430P705X5100	0.633 [16.08]	1.500 [38.10]	20	
10.0	V-430P106X9100	V-430P106X5100	0.678 [17.22]	1.750 [44.45]	20	
200 WVDC						
0.047	V-430P473X9200	V-430P473X5200	0.200 [5.08]	0.625 [15.88]	22	
0.056	V-430P563X9200	V-430P563X5200	0.211 [5.36]	0.625 [15.88]	22	
0.068	V-430P683X9200	V-430P683X5200	0.225 [5.72]	0.625 [15.88]	22	
0.082	V-430P823X9200	V-430P823X5200	0.240 [6.10]	0.625 [15.88]	22	
0.10	V-430P104X9200	V-430P104X5200	0.221 [5.61]	0.750 [19.05]	22	
0.12	V-430P124X9200	V-430P124X5200	0.234 [5.94]	0.750 [19.05]	22	
0.15	V-430P154X9200	V-430P154X5200	0.254 [6.45]	0.750 [19.05]	22	
0.18	V-430P184X9200	V-430P184X5200	0.272 [6.91]	0.750 [19.05]	20	
0.22	V-430P224X9200	V-430P224X5200	0.295 [7.49]	0.750 [19.05]	20	
0.27	V-430P274X9200	V-430P274X5200	0.258 [6.55]	1.000 [25.40]	22	
0.33	V-430P334X9200	V-430P334X5200	0.279 [7.09]	1.000 [25.40]	20	
0.39	V-430P394X9200	V-430P394X5200	0.298 [7.57]	1.000 [25.40]	20	
0.47	V-430P474X9200	V-430P474X5200	0.321 [8.15]	1.000 [25.40]	20	
0.56	V-430P564X9200	V-430P564X5200	0.345 [8.76]	1.000 [25.40]	20	
0.68	V-430P684X9200	V-430P684X5200	0.375 [9.53]	1.000 [25.40]	20	
0.82	V-430P824X9200	V-430P824X5200	0.350 [8.89]	1.250 [31.75]	20	
1.0	V-430P105X9200	V-430P105X5200	0.380 [9.65]	1.250 [31.75]	20	
1.5	V-430P155X9200	V-430P155X5200	0.454 [11.53]	1.250 [31.75]	20	
2.0	V-430P205X9200	V-430P205X5200	0.469 [11.91]	1.500 [38.10]	20	
2.5	V-430P255X9200	V-430P255X5200	0.516 [13.11]	1.500 [38.10]	20	
3.0	V-430P305X9200	V-430P305X5200	0.559 [14.20]	1.500 [38.10]	20	
4.0	V-430P405X9200	V-430P405X5200	0.580 [14.73]	1.750 [44.45]	20	
5.0	V-430P505X9200	V-430P505X5200	0.641 [16.28]	1.750 [44.45]	20	

Note
 • Other capacitance values and voltage ratings are available upon request



STANDARD RATINGS in inches [millimeters]						
CAPACITANCE (μ F)	PART NUMBER		CASE SIZE		LEAD AWG NO.	
	$\pm 10\%$ TOLERANCE	$\pm 5\%$ TOLERANCE	D	L		
400 WVDC						
0.015	V-430P153X9400	V-430P153X5400	0.186 [4.72]	0.625 [15.88]	22	
0.018	V-430P183X9400	V-430P183X5400	0.197 [5.00]	0.625 [15.88]	22	
0.022	V-430P223X9400	V-430P223X5400	0.210 [5.33]	0.625 [15.88]	22	
0.027	V-430P273X9400	V-430P273X5400	0.224 [5.69]	0.625 [15.88]	22	
0.033	V-430P333X9400	V-430P333X5400	0.241 [6.12]	0.625 [15.88]	22	
0.039	V-430P393X9400	V-430P393X5400	0.256 [6.50]	0.625 [15.88]	22	
0.047	V-430P473X9400	V-430P473X5400	0.275 [6.99]	0.625 [15.88]	20	
0.056	V-430P563X9400	V-430P563X5400	0.248 [6.30]	0.750 [19.05]	22	
0.068	V-430P683X9400	V-430P683X5400	0.266 [6.76]	0.750 [19.05]	22	
0.082	V-430P823X9400	V-430P823X5400	0.286 [7.26]	0.750 [19.05]	20	
0.10	V-430P104X9400	V-430P104X5400	0.310 [7.87]	0.750 [19.05]	20	
0.12	V-430P124X9400	V-430P124X5400	0.268 [6.81]	1.000 [25.40]	22	
0.15	V-430P154X9400	V-430P154X5400	0.293 [7.44]	1.000 [25.40]	20	
0.18	V-430P184X9400	V-430P184X5400	0.315 [8.00]	1.000 [25.40]	20	
0.22	V-430P224X9400	V-430P224X5400	0.342 [8.69]	1.000 [25.40]	20	
0.27	V-430P274X9400	V-430P274X5400	0.322 [8.18]	1.250 [31.75]	20	
0.33	V-430P334X9400	V-430P334X5400	0.350 [8.89]	1.250 [31.75]	20	
0.39	V-430P394X9400	V-430P394X5400	0.337 [8.56]	1.500 [38.10]	20	
0.47	V-430P474X9400	V-430P474X5400	0.364 [9.25]	1.500 [38.10]	20	
0.56	V-430P564X9400	V-430P564X5400	0.393 [9.98]	1.500 [38.10]	20	
0.68	V-430P684X9400	V-430P684X5400	0.402 [10.21]	1.750 [44.45]	20	
0.82	V-430P824X9400	V-430P824X5400	0.434 [11.02]	1.750 [44.45]	20	
1.0	V-430P105X9400	V-430P105X5400	0.472 [11.99]	1.750 [44.45]	20	
1.5	V-430P155X9400	V-430P155X5400	0.563 [14.30]	1.750 [44.45]	20	
2.0	V-430P205X9400	V-430P205X5400	0.640 [16.26]	1.750 [44.45]	20	
600 WVDC						
0.0047	V-430P472X9600	V-430P472X5600	0.187 [4.75]	0.625 [15.88]	22	
0.0056	V-430P562X9600	V-430P562X5600	0.197 [5.00]	0.625 [15.88]	22	
0.0068	V-430P682X9600	V-430P682X5600	0.209 [5.31]	0.625 [15.88]	22	
0.0082	V-430P822X9600	V-430P822X5600	0.223 [5.66]	0.625 [15.88]	22	
0.01	V-430P103X9600	V-430P103X5600	0.239 [6.07]	0.625 [15.88]	22	
0.012	V-430P123X9600	V-430P123X5600	0.255 [6.48]	0.625 [15.88]	22	
0.015	V-430P153X9600	V-430P153X5600	0.224 [5.69]	0.750 [19.05]	22	
0.018	V-430P183X9600	V-430P183X5600	0.239 [6.07]	0.750 [19.05]	22	
0.022	V-430P223X9600	V-430P223X5600	0.257 [6.53]	0.750 [19.05]	22	
0.027	V-430P273X9600	V-430P273X5600	0.278 [7.06]	0.750 [19.05]	20	
0.033	V-430P333X9600	V-430P333X5600	0.300 [7.62]	0.750 [19.05]	20	
0.039	V-430P393X9600	V-430P393X5600	0.251 [6.38]	1.000 [25.40]	22	
0.047	V-430P473X9600	V-430P473X5600	0.269 [6.83]	1.000 [25.40]	22	
0.056	V-430P563X9600	V-430P563X5600	0.288 [7.32]	1.000 [25.40]	20	
0.068	V-430P683X9600	V-430P683X5600	0.311 [7.90]	1.000 [25.40]	20	
0.082	V-430P823X9600	V-430P823X5600	0.336 [8.53]	1.000 [25.40]	20	
0.10	V-430P104X9600	V-430P104X5600	0.365 [9.27]	1.000 [25.40]	20	
0.12	V-430P124X9600	V-430P124X5600	0.335 [8.51]	1.250 [31.75]	20	
0.15	V-430P154X9600	V-430P154X5600	0.368 [9.35]	1.250 [31.75]	20	
0.18	V-430P184X9600	V-430P184X5600	0.354 [8.99]	1.500 [38.10]	20	
0.22	V-430P224X9600	V-430P224X5600	0.385 [9.78]	1.500 [38.10]	20	
0.27	V-430P274X9600	V-430P274X5600	0.421 [10.69]	1.500 [38.10]	20	
0.33	V-430P334X9600	V-430P334X5600	0.428 [10.87]	1.750 [44.45]	20	
0.39	V-430P394X9600	V-430P394X5600	0.459 [11.66]	1.750 [44.45]	20	
0.47	V-430P474X9600	V-430P474X5600	0.497 [12.62]	1.750 [44.45]	20	
0.56	V-430P564X9600	V-430P564X5600	0.537 [13.64]	1.750 [44.45]	20	
0.68	V-430P684X9600	V-430P684X5600	0.585 [14.86]	1.750 [44.45]	20	

Note
 • Other capacitance values and voltage ratings are available upon request

ORDERING INFORMATION			
V-430P TYPE	124 CAPACITANCE	X9 CAPACITANCE TOLERANCE	050 DC VOLTAGE RATING
	This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow. Values must conform to the decade rating for the tolerance specified.	X0 = $\pm 20\%$ X9 = $\pm 10\%$ X5 = $\pm 5\%$	This is expressed in volts. To complete the three-digit block, zeros precede the voltage rating.



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk and agree to fully indemnify and hold Vishay and its distributors harmless from and against any and all claims, liabilities, expenses and damages arising or resulting in connection with such use or sale, including attorneys fees, even if such claim alleges that Vishay or its distributor was negligent regarding the design or manufacture of the part. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.