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Type VPR -55 to 105 °C Radial Leaded Aluminum Electrolytic

Low ESR, Optional 3rd Lead Case Styles, Aluminum Electrolytic Capacitors



Type VPR is a radial lead aluminum electrolytic capacitor with a 105 °C, 2000 hours long life ratings. The VPR has 3 optional case styles with a third lead. The low ESR rating makes it ideal for output filtering in switching power supplies.

Highlights

- 105 °C
- Long life
- Low ESR
- High reliability

Specifications

Specifications

Temperature Range	-55 °C to +105 °C														
Rated Voltage Range	6.3 to 100 Vdc (250 Vdc on special request)														
Capacitance Range	250 to 12,000 µF														
Capacitance Tolerance	-10% +75% (others on special request)														
Leakage Current	I = .002 CV after 2 minutes @ 25 °C C = Capacitance in (µF) V = Rated voltage I = Leakage current in µA														
Ripple Current Multipliers	<table> <tr> <th>Temperature (°C)</th> <th>45</th> <th>55</th> <th>65</th> <th>75</th> <th>85</th> <th>95</th> </tr> <tr> <th>Multiplier</th> <td>1.66</td> <td>1.52</td> <td>1.37</td> <td>1.2</td> <td>1</td> <td>0.75</td> </tr> </table>	Temperature (°C)	45	55	65	75	85	95	Multiplier	1.66	1.52	1.37	1.2	1	0.75
Temperature (°C)	45	55	65	75	85	95									
Multiplier	1.66	1.52	1.37	1.2	1	0.75									
QA Stability Test	Apply WVDC for 2000 h at 105 °C Capacitance change within 15% of initial limits DC leakage current meets initial limits ESR ≤ 150% of initial measured value														
RoHS Compliant															

Part Numbering System

VPR	372	U	016	L2C	3	A
Type	Capacitance	Capacitance Tolerance	Rated Voltage	Case Code	Insulating Sleeve	Lead Configuration
	(µF)	(%)	(Vdc)			
VPR	100 = 10 101 = 100 372 = 3700	U = -10 +75 T = -10 +50	6R3 = 6.3 016 = 16 100 = 100	See Case Code Chart	0 = No sleeve 3 = PVC 4 = Plastic sleeve 5 = Plastic sleeve with end seal	A = Standard B, J or T – see outline dimensions

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Outline Drawing

Figure A
.512 Diameter

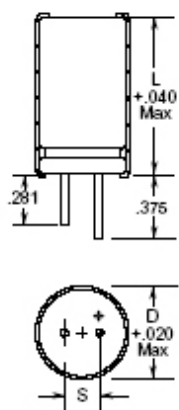


Figure A
.750 Diameter & Greater

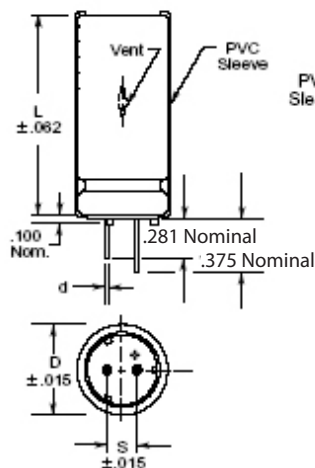


Figure J
(Optional)

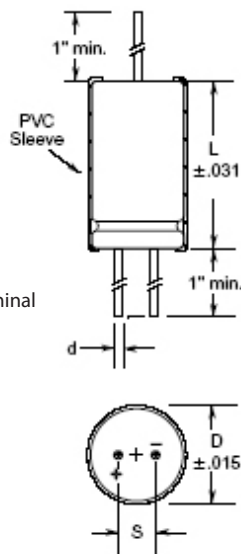


Figure T
(Optional)

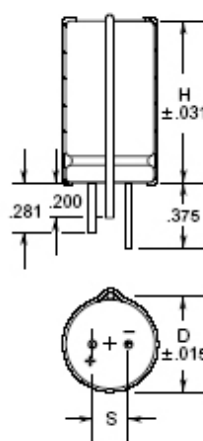
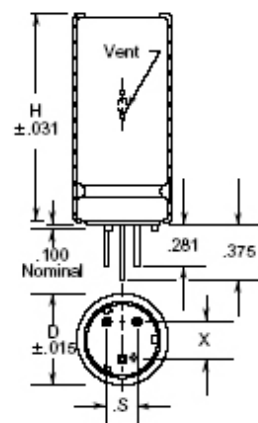


Figure B
(Optional)



PVC sleeve adds .015 to diameter and length.

(Inches)

Case Code

Case Code Chart

Uninsulated Case Size

Case Code	Inches			Millimeters			Lead Wire Size	
	D	L	S	D	L	S	Inches	AWG
L1C	0.875	1.125	0.30	22.2	28.6	7.62	0.04	#18
L1L	0.875	1.625	0.30	22.2	41.3	7.62	0.04	#18
L2C	0.875	2.125	0.30	22.2	53.9	7.62	0.04	#18
L2L	0.875	2.625	0.30	22.2	66.7	7.62	0.04	#18
L3C	0.875	3.125	0.30	22.2	79.4	7.62	0.04	#18
L3L	0.875	3.625	0.30	22.2	92.1	7.62	0.04	#18
N1C	1.000	1.125	0.40	25.4	28.6	10.16	0.04	#18
N1L	1.000	1.625	0.40	25.4	41.3	10.16	0.04	#18
N2C	1.000	2.125	0.40	25.4	53.9	10.16	0.04	#18
N2L	1.000	2.625	0.40	25.4	66.7	10.16	0.04	#18
N3C	1.000	3.125	0.40	25.4	79.4	10.16	0.04	#18
N3L	1.000	3.625	0.40	25.4	92.1	10.16	0.04	#18

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Ratings

Cap (μF)	Catalog Part Number	Max ESR	Max Ripple	Size in. (mm)			
		10 kHz	10 kHz	Diameter (D)	Length (L)	Lead Space (S)	Lead Dia. (d)
		25 °C (Ω)	85 °C (A)				
6.3 Vdc (8 Volts Surge)							
5,600	VPR562U6R3N1L	0.034	3.767	1.000 (25.4)	1.625 (41.3)	0.40 (10.2)	0.040 (1.0)
8,800	VPR882U6R3N2C	0.023	5.131	1.000 (25.4)	2.125 ((54.0)	0.40 (10.2)	0.040 (1.0)
12,000	VPR123U6R3N2L	0.018	6.364	1.000 (25.4)	2.625 (66.7)	0.40 (10.2)	0.040 (1.0)
7.5 Vdc (10 Volts Surge)							
4,900	VPR492U7R5N1L	0.031	3.820	1.000 (25.4)	1.625 (41.3)	0.40 (10.2)	0.040 (1.0)
10 Vdc (13 Volts Surge)							
4,200	VPR422U010N1L	0.032	3.702	1.000 (25.4)	1.625 (41.3)	0.40 (10.2)	0.040 (1.0)
12 Vdc (18 Volts Surge)							
5,600	VPR562U012N2C	0.021	4.932	1.000 (25.4)	2.125 ((54.0)	0.40 (10.2)	0.040 (1.0)
16 Vdc (20 Volts Surge)							
2,300	VPR232U016L1L	0.040	2.863	0.875 (22.2)	1.625 (41.3)	0.30 (7.6)	0.040 (1.0)
3,200	VPR322U016N1L	0.029	3.637	1.000 (25.4)	1.625 (41.3)	0.40 (10.2)	0.040 (1.0)
3,700	VPR372U016L2C	0.026	3.981	0.875 (22.2)	2.125 ((54.0)	0.30 (7.6)	0.040 (1.0)
5,000	VPR502U016N2C	0.020	4.887	1.000 (25.4)	2.125 ((54.0)	0.40 (10.2)	0.040 (1.0)
6,900	VPR692U016N2L	0.017	6.105	1.000 (25.4)	2.625 (66.7)	0.40 (10.2)	0.040 (1.0)
10,000	VPR103U016N3L	0.012	8.033	1.000 (25.4)	3.625 (92.1)	0.40 (10.2)	0.040 (1.0)
25 Vdc (30 Volts Surge)							
640	VPR641U025E1L	0.067	2.390	0.512 (13.0)	1.654 (42.0)	0.20 (5.1)	0.023 (.58)
1,300	VPR132U025L1L	0.035	2.729	0.875 (22.2)	1.625 (41.3)	0.30 (7.6)	0.040 (1.0)
1,800	VPR182U025N1L	0.035	3.006	1.000 (25.4)	1.625 (41.3)	0.40 (10.2)	0.040 (1.0)
2,800	VPR282U025L2L	0.018	4.732	0.875 (22.2)	2.625 (66.7)	0.30 (7.6)	0.040 (1.0)
2,800	VPR282U025N2C	0.023	4.107	1.000 (25.4)	2.125 ((54.0)	0.40 (10.2)	0.040 (1.0)
3,900	VPR392U025N2L	0.018	5.191	1.000 (25.4)	2.625 (66.7)	0.40 (10.2)	0.040 (1.0)
5,900	VPR592U025N3L	0.014	6.616	1.000 (25.4)	3.625 (92.1)	0.40 (10.2)	0.040 (1.0)

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Cap (μF)	Catalog Part Number	Max ESR 10 kHz 25 °C (Ω)	Max Ripple 10 kHz 85 °C (A)	Size in. (mm)			
				Diameter (D)	Length (L)	Lead Space (S)	Lead Dia. (d)
40 Vdc (50 Volts Surge)							
760	VPR761U040L1L	0.040	2.194	0.875 (22.2)	1.625 (41.3)	0.30 (7.6)	0.040 (1.0)
1,600	VPR162U040N2C	0.021	3.755	1.000 (25.4)	2.125 ((54.0)	0.40 (10.2)	0.040 (1.0)
2,200	VPR222U040N2L	0.017	4.732	1.000 (25.4)	2.625 (66.7)	0.40 (10.2)	0.040 (1.0)
2,800	VPR282U040N3C	0.014	5.651	1.000 (25.4)	3.125 (79.4)	0.40 (10.2)	0.040 (1.0)
3,300	VPR332U040N3L	0.014	6.437	1.000 (25.4)	3.625 (92.1)	0.40 (10.2)	0.040 (1.0)
50 Vdc (65 Volts Surge)							
600	VPR601U050L1L	0.049	1.964	0.875 (22.2)	1.625 (41.3)	0.30 (7.6)	0.040 (1.0)
1200	VPR122U050N2C	0.028	3.297	1.000 (25.4)	2.125 ((54.0)	0.40 (10.2)	0.040 (1.0)
2,400	VPR242U050N3L	0.015	5.639	1.000 (25.4)	3.625 (92.1)	0.40 (10.2)	0.040 (1.0)
75 Vdc (95 Volts Surge)							
450	VPR451U075N1L	0.102	1.779	1.000 (25.4)	1.625 (41.3)	0.40 (10.2)	0.040 (1.0)
680	VPR681U075N2C	0.069	2.420	1.000 (25.4)	2.125 ((54.0)	0.40 (10.2)	0.040 (1.0)
1,100	VPR112U075N3C	0.044	3.577	1.000 (25.4)	3.125 (79.4)	0.40 (10.2)	0.040 (1.0)
100 Vdc (125 Volts Surge)							
250	VPR251U100N1L	0.111	1.818	1.000 (25.4)	1.625 (41.3)	0.40 (10.2)	0.040 (1.0)

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