

# (41L) Switching Capacitors

## 250, 400, 600, and 700 Volts Peak

The 41L series are high performance metallized polypropylene, axial leaded capacitors **designed specifically for demanding electronic applications**. Applications for this series of capacitors include electronic ballasts, industrial controls, motor running, brushless motor speed control, switch mode power supplies (SMPS), un-interruptible power supply systems and induction ovens. These capacitors are **designed for minimum series inductance (ESL) and very low series resistance (ESR)** to minimize power dissipation and provide an extremely reliable product with excellent performance characteristics. If there are **any questions** regarding the correct application of these products, please **contact your RBC sales representative**.

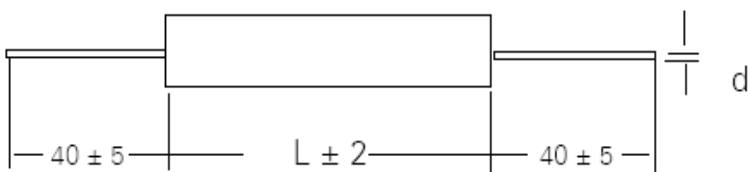
### SPECIFICATIONS:

<b>Available Capacitance Range:</b>	0.68 to 30 $\mu$ F (Other custom ratings available)
<b>Capacitance Tolerance:</b>	$\pm$ 5%
<b>Rated Voltage VDC:</b>	250V – 400V – 600V – 700V
<b>Leads:</b>	20, 18, 16 AWG electroplated
<b>Package Construction:</b>	Polyester wrapping with epoxy resin end fill
<b>Flame Retardant:</b>	Polyester coating as UL 510, Epoxy resin as UL 94 VI
<b>Storage Temperature:</b>	-40°C to +85°C
<b>Operating Temperature:</b>	-40°C to +85°C (Operation at rated power, rated current and natural cooling)
<b>Insulation Resistance Test Conditions:</b>	Temperature: +25°C $\pm$ 5°C Voltage Charge Time: 1 Minute Voltage Charge: 100 VDC Typ. Value: 3,000 sec.
<b>Dissipation Factor (tg<math>\delta</math>)</b>	5 x 10 <sup>-4</sup> at 1 KHz and 25°C
<b>Capacitance Deviation:</b>	$\pm$ 1.5% Max on capacitance value at 25°C temperature range -40°C to +85°C
<b>Change of Capacitance Vs Op. Time:</b>	-3% after 30,000 Hrs at VAC or after 100,000 Hrs at VDC
<b>Life Expectancy:</b>	30,000 Hours at VAC
<b>Failure Quota:</b>	300/10 <sup>9</sup> components hours



# (41L) Switching Capacitors Ratings

Voltage Rating	Capacitance (μF)	Catalog Number	dV / dt V / us	IPKR (A)	ESR typ. at 100 KHz (m Ω)	IRMS @ 100 KHz -70°C (A)	Dimensions	
							D max	L
<b>250 VDC</b> (160 VAC)	1.0	41L2101	90	90	2.7	5	11.0	19
	1.5	41L2151	50	75	5.4	7	10.0	31
	2.2	41L2221	50	110	3.7	9	11.5	31
	2.5	41L2251	50	125	3.3	9	12.0	31
	3.0	41L2301	50	150	2.9	9	13.5	31
	5.0	41L2501	50	250	2.1	9	17.0	31
	6.8	41L2681	50	340	1.8	9	20.0	31
	10.0	41L2100	30	300	2.1	9	20.0	42
	15.0	41L2150	30	450	1.6	11	24.5	42
	20.0	41L2200	30	600	1.5	11	28.0	42
<b>400 VDC</b> (250 VAC)	0.68	41L4682	70	48	7.4	6	10.0	31
	1.0	41L4101	70	70	5.1	8	12.0	31
	1.5	41L4151	70	105	3.6	9	14.5	31
	2.0	41L4201	70	140	2.9	9	16.5	31
	2.2	41L4221	70	155	2.8	9	17.5	31
	2.5	41L4251	70	175	2.5	9	18.5	31
	3.0	41L4301	70	210	2.3	9	20.0	31
	4.0	41L4401	50	200	3.0	9	19.5	31
	4.7	41L4471	50	235	2.7	9	21.0	42
	5.0	41L4501	50	250	2.6	9	21.5	42
	6.8	41L4681	50	340	2.1	11	25.0	42
	10.0	41L4100	50	500	1.8	11	30.0	42
	15.0	41L4150	30	450	3.1	11	32.0	55
	<b>600 VDC</b> (330 VAC)	1.0	41L6101	100	100	4.2	9	15.5
2.0		41L6201	75	150	4.1	9	18.5	42
2.2		41L6221	75	165	3.9	9	19.5	42
3.0		41L6301	75	225	3.1	9	22.5	42
4.7		41L6471	75	350	2.3	11	27.5	42
5.0		41L6501	75	375	2.2	11	28.5	42
6.8		41L6681	50	340	4.5	11	28.5	55
10.0		41L6100	50	500	3.5	11	34.5	55
<b>700 VDC</b> (400 VAC)	0.68	41L7682	125	85	4.6	9	17.0	31
	1.0	41L7101	125	125	3.4	9	20.5	31
	1.5	41L7151	90	135	4.2	9	20.5	42
	2.0	41L7201	90	180	3.3	11	23.5	42
	2.2	41L7221	90	200	3.1	11	24.5	42
	3.0	41L7301	90	270	2.6	11	28.5	42
	4.0	41L7401	90	360	2.2	11	33.0	42
	4.7	41L7471	60	280	5.2	11	30.0	55
	5.0	41L7501	60	300	4.9	11	30.5	55



<b>D</b>	< 10mm	> 10 mm ≤ 22 mm	> 22 mm
<b>d</b>	0.8 mm (20 AWG)	1.0 mm (18 AWG)	1.2 mm (16 AWG)

<b>Vdc</b>	250 V	400 V	600 V	700 V	850 V
<b>Vp</b>	400 V	600 V	800 V	1000 V	1200 V

