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SNUBBER, HIGH CURRENT DC, AND SWITCHING CAPACITORS

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Table of contents

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Snubber, High - Current DC, and Switching Capacitors

40L Series - Snubber & High-Current DC Capacitors

Product specifications 2

Ratings 3

Application Data 4

41L Series - Switching Capacitors

Product specifications 5

Ratings 6

42L Series - Snubber & High-Current DC

Product specifications 7

Ratings 8

Capacitor Label 9

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(40L) Snubber & High-Current DC 400 and 600 Volts Peak

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The 40L Series are high-performance dry, axial-leaded capacitors **designed specifically for demanding electronic applications**. They are commonly used in input and output filters and for DC blocking in high- frequency switch-mode power supplies. The low electrical losses of the polypropylene film dielectric combined with the enhanced current carrying ability of the special "graded" metallized electrodes results in outstanding performance. If there are any questions regarding the correct application of these products, please contact your Capcom sales

SPECIFICATIONS:

Available Capacitance Range:	0.47 to 6.8µF
Capacitance Tolerance	±10%
Capacitance Variation with Temperature:	±3% from -55°C to +105°C
Rated Voltage:	See Rating Tables. Rating is the Maximum Peak DC Voltage.
Rated Current:	See Rating Tables. The rating is the Maximum allowable RMS current in amperes.
Equivalent Series Resistance (ESR):	See Rating Table. The rating is the maximum value measured at 25°C in the range of 20-100,000Hz.
Capacitance:	Values shown in the table at 25°C, 1KHz.
Operating Temperature:	-55°C to +105°C
Storage Temperature:	-55°C to +105°C
Dissipation Factor:	0.1% maximum at 25°C, 1KHz
Insulation Resistance	200,000Megohms - µF minimum at 100 VDC after 1-minute energization at 25°C.
Lead:	20 or 18 AWG electroplated solid copper wire leads. (gauge tolerance: ±0.001 in.)
Package Construction:	Fire retardant tape wrap with polyurethane potting compound

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(40L) Snubber & High-Current DC Ratings

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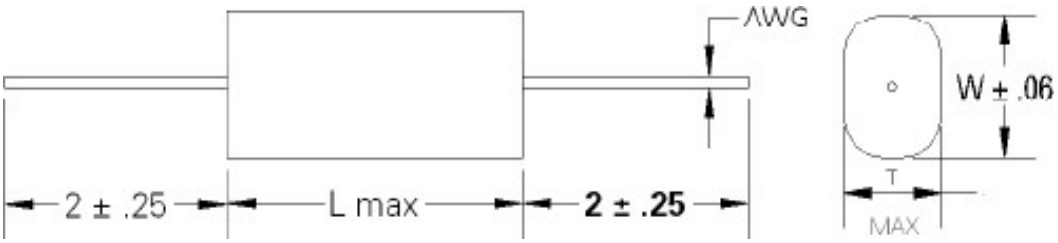
Voltage Rating	Capacitance (µF)	Catalog Number	Dimensions			Lead Size AWG	ESR (m Ω)	Current (A)
			T	W	L			
400 VDC (250 VAC)	0.47	40L3472	0.28	0.47	1.25	20	21	4
	0.68	40L3682	0.30	0.53	1.25	20	13	6
	1.00	40L3101	0.39	0.59	1.25	20	11	9
	1.50	40L3151	0.48	0.69	1.25	20	9	10
	2.00	40L3201	0.48	0.69	1.25	20	9	10
	2.20	40L3221	0.56	0.83	1.25	20	8	11
	3.30	40L3331	0.69	0.93	1.25	20	7	15
	4.70	40L3471	0.64	0.88	1.75	18	7	17
	6.80	40L3681	0.67	0.90	2.25	18	7	17
	8.00	40L3801	0.69	1.02	2.25	18	7	17
	10.00	40L3100	0.70	1.05	2.25	18	7	17
600 VDC (330 VAC)	0.47	40L6472	0.46	0.69	1.25	20	13	4
	0.68	40L6682	0.55	0.79	1.25	20	10	6
	1.00	40L6101	0.67	0.91	1.25	20	8	9
	1.50	40L6151	0.73	0.97	1.50	20	7	11
	2.20	40L6221	0.64	0.88	2.25	18	10	13



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(40L) Snubber & High - Current DC Application data

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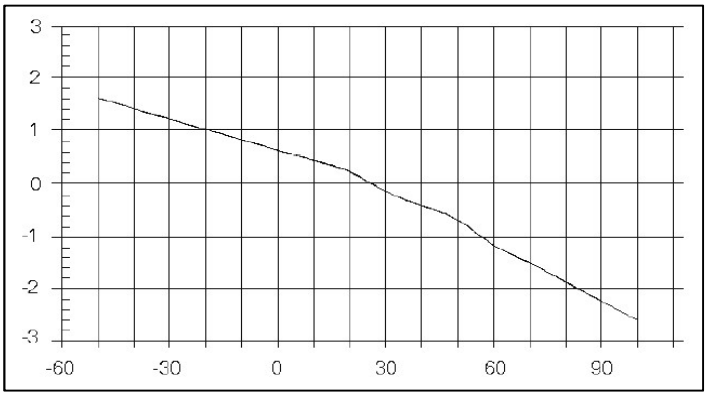
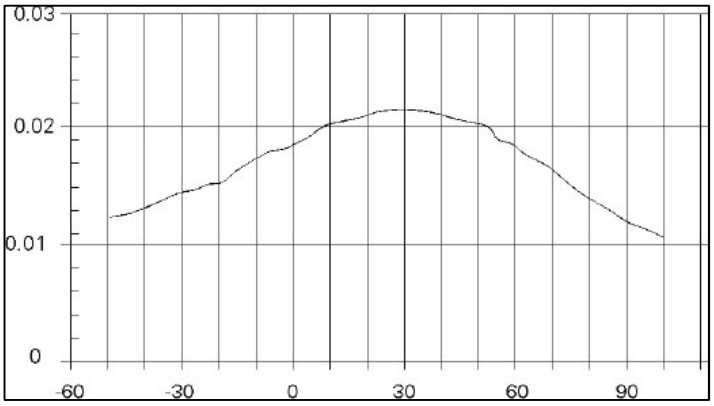
% CAPACITANCE vs. TEMPERATURE



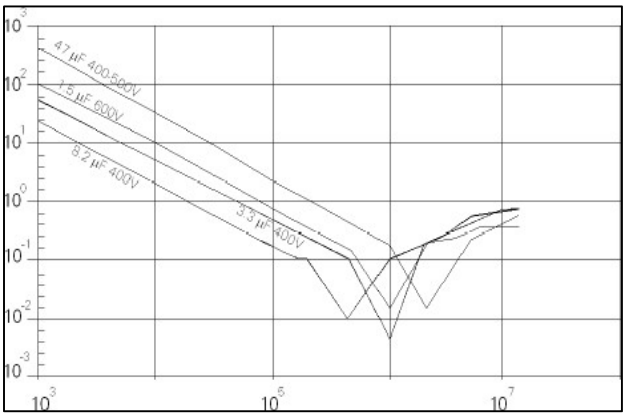
Temperature (Degrees oC)

% DISSIPATION FACTOR VS TEMPERATURE



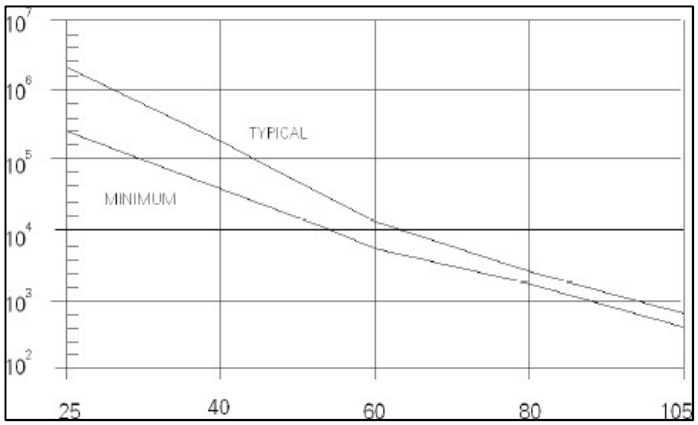
Temperature (Degrees oC)

IMPEDANCE VS FREQUENCY



Frequency (Hz)

NSULATION RESISTANCE VS TEMPERATURI



Temperature (Degrees oC)

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(41L) Snubber & High-Current DC 250,400,600 and 700 Volts Peak

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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 Capcom sales representative.

SPECIFICATIONS:

Available Capacitance Range:	0.68 to 30µF (Special ratings upon request)	
Capacitance Tolerance:	±5%	
Rated Voltage VDC:	250V – 400V – 600V – 700V	
Leads:	20, 18, 16 AWG electroplated	
Package Construction:	Polyester wrapping with epoxy resin end fill	
Flame Retardant:	Polyester coating as UL 510, Epoxy resin as UL 94 VI	
Storage Temperature:	-40°C to +85°C	
Operating Temperature:	-40°C to +85°C (Operation at rated power, rated current and natural cooling)	
Insulation Resistance Test Conditions:	Temperature:	+25°C±5°C
	Voltage Charge Time:	1 Minute
	Voltage Charge:	100 VDC
	Typ. Value:	3,000 sec
Dissipation Factor (tgδ):	5×10^{-4} at 1 KHz and 25°C	
Capacitance Deviation:	±1.5% Max on capacitance value at 25°C temperature range -40°C to +85°C	
Change of Capacitance Vs Op. Time:	-3% after 30,000 Hrs at VAC or after 100,000 Hrs at VDC	
Package Construction:	Fire retardant tape wrap with polyurethane potting compound	
Life Expectancy:	30,000 Hours at VAC	
Failure Quota:	$300/10^9$ components hours	

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(41L) Switching Capacitors Ratings

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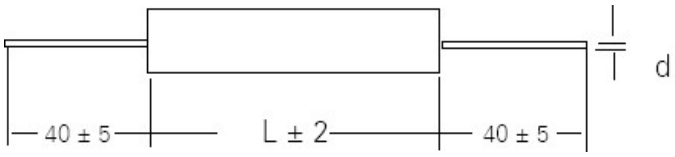
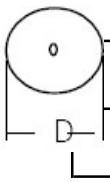
Voltage Rating	Capacitance (µF)	Catalog Number	dV / dt V / us	IPKR (A)	ESR typ. at 100 KHz (m Ω)	IRMS @ 100 KHz -70°C (A)	Dimensions	
							D max	L
250 VDC (160 VAC)	1.0	41L2101	90	90	2.7	5	11.0	19
	1.5	41L2151	50	75	5.4	7	10.0	31
	2.2	41L2221	50	110	3.7	9	11.5	31
	2.5	41L2251	50	125	3.3	9	12.0	31
	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
	25.0	41L2250	30	750	1.5	11	31.5	42
	30.0	41L2300	20	600	2.6	11	29.5	55
400 VDC (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
600 VDC (330 VAC)	1.0	41L6101	100	100	4.2	9	15.5	31
	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
700 VDC (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





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

Vdc	250 V	400 V	600 V	700 V	850 V
Vp	400 V	600 V	800 V	1000 V	1200 V

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(42L) Snubber & High-Current DC 850,1200,2000 and 3000 Volts Peak

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The 42L series are high performance metallized polypropylene, axial leaded capacitors **designed for tough high voltage electronic applications.** Applications for this product include battery charging systems, industrial controls, AC inverters, AC drives, un-interruptable power supply systems and power conditioning products. 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 unsurpassed performance characteristics. If there are any questions regarding the correct application of these products, please contact your Capcom sales

SPECIFICATIONS:

Available Capacitance Range:	0.01 to 2.6µF (Other custom ratings available)	
Capacitance Tolerance:	±5%	
Rated Voltage VDC:	850V – 1200V – 2000V – 3000V	
Leads:	20, 18, 16 AWG electroplated	
Package Construction:	Polyester wrapping with epoxy resin end fill	
Flame Retardant:	Polyester coating as UL 510, Epoxy resin as UL 94 VI	
Storage Temperature:	-40°C to +85°C	
Operating Temperature:	-40°C to +85°C (Operation at rated power, rated current and natural cooling)	
Insulation Resistance Test Conditions:	Temperature:	+25°C±5°C
	Voltage Charge Time:	1 Minute
	Voltage Charge:	100 VDC
	Typ. Value:	3,000 sec
Dissipation Factor (tgδ):	5×10^{-4} at 1 KHz and 25°C	
Capacitance Deviation:	±1.5% Max on capacitance value at 25°C temperature range -40°C to +85°C	
Change of Capacitance Vs Op. Time:	-3% after 30,000 Hrs at VAC or after 100,000 Hrs at VDC	
Life Expectancy:	30,000 Hours at VAC	
Failure Quota:	$300/10^9$ components hours	

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(42L) Snubber & High-Current DC Ratings

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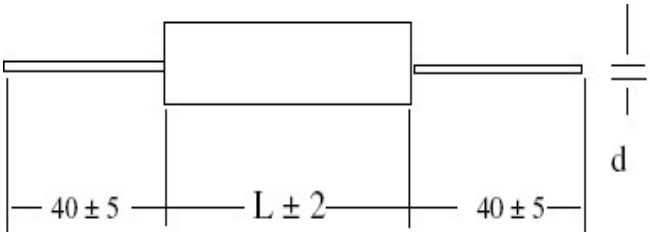
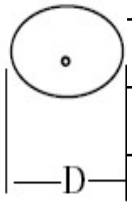
Voltage Rating	Capacitance (µF)	Catalog Number	dV / dt V / us	IPKR (A)	ESR typ. at 100 KHz (m Ω)	IRMS @ 100 KHz -70ºC (A)	Dimensions	
							D max	L
850 VDC (450 VAC)	0.150	42L1152	300	45	9.5	5	10.0	31
	0.220	42L1222	300	66	6.6	7	12.0	31
	0.330	42L1332	300	100	4.6	9	14.5	31
	0.470	42L1472	300	140	3.5	9	17.0	31
	0.680	42L1682	300	200	2.7	9	20.5	31
	1.000	42L1101	200	200	3.1	9	20.5	42
	1.500	42L1151	200	300	2.3	11	24.5	42
	2.000	42L1201	200	400	2.0	11	28.5	42
	2.200	42L1221	200	440	1.9	11	30.0	42
	2.500	42L1251	200	500	1.9	11	31.5	42
1200 VDC (500 VAC)	0.100	42L2102	1100	110	8.7	7	14.0	31
	0.150	42L2152	1100	165	6.1	9	17.0	31
	0.220	42L2222	1100	240	4.5	9	20.5	31
	0.330	42L2332	650	215	4.7	9	19.5	42
	0.470	42L2472	650	305	3.6	9	23.0	42
	0.680	42L2682	650	440	2.7	11	27.5	42
	1.000	42L2101	650	650	2.3	11	33.5	42
	1.200	42L2121	400	480	2.8	11	29.0	55
2000 VDC (630 VAC)	0.022	42L3223	1750	39	31.9	3	10.5	31
	0.033	42L3333	1750	58	21.4	4	12.5	31
	0.047	42L3473	1750	80	15.2	5	14.5	31
	0.068	42L3683	1750	120	10.8	7	17.0	31
	0.100	42L3102	1750	175	7.6	9	20.5	31
	0.150	42L3152	1000	150	7.4	9	19.5	42
	0.220	42L3222	1000	220	5.4	9	23.5	42
	0.330	42L3332	1000	330	3.9	11	28.5	42
	0.470	42L3472	1000	470	3.1	11	33.5	42
	0.560	42L3562	650	365	3.9	11	29.0	55
3000 VDC (750 VAC)	0.010	42L4103	2750	28	61.6	2	12.0	31
	0.015	42L4153	2750	41	41.3	3	14.0	31
	0.022	42L4223	2750	60	28.4	4	16.5	31
	0.033	42L4333	2750	90	19.2	5	20.0	31
	0.047	42L4473	1600	75	17.9	6	18.5	42
	0.068	42L4683	1600	110	12.6	8	22.0	42
	0.100	42L4102	1600	160	8.8	11	26.5	42
	0.150	42L4152	1600	240	6.2	11	32.0	42





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

Vdc	850 V	1200 V	2000 V	3000 V
Vp	1200 V	1600 V	2400 V	3500 V

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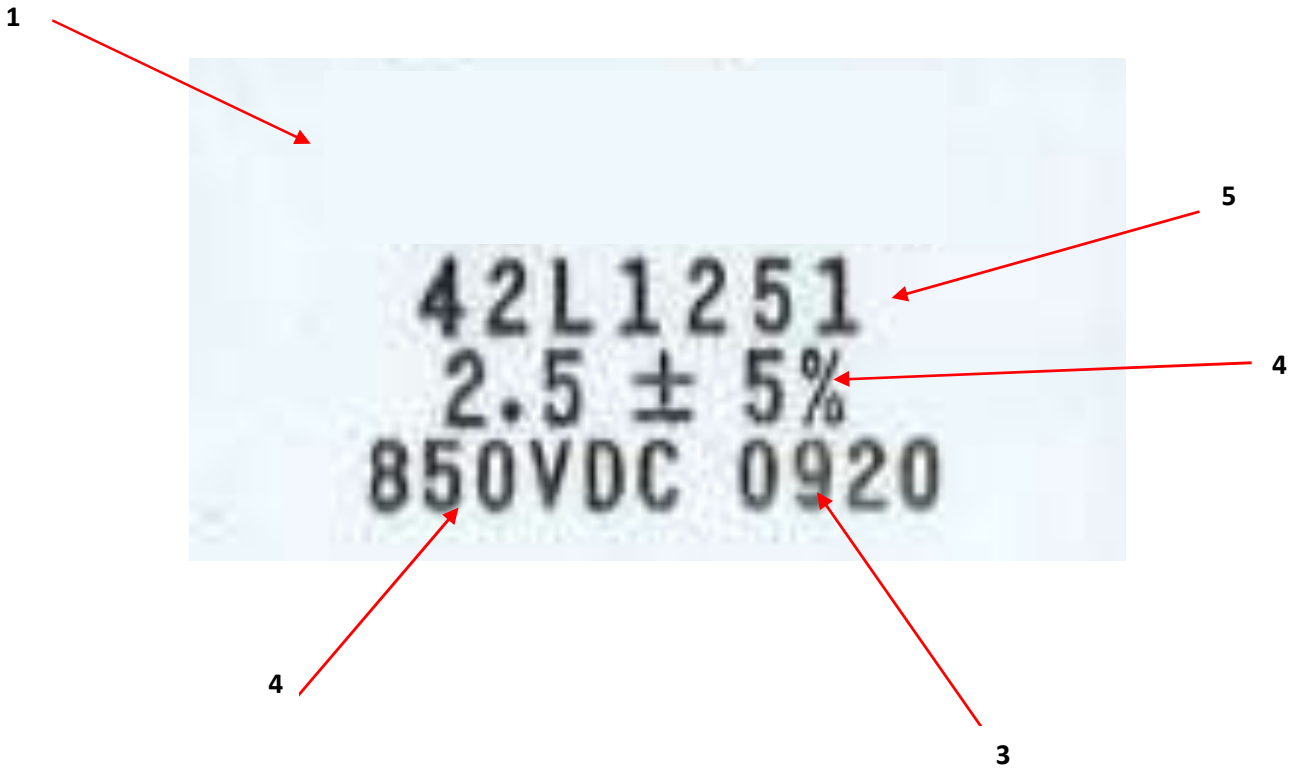
Capacitor Label



1. Product / Brand
2. DC Voltage Rating
3. Manufacturing Date Code

Example:	
09	**20**
↑	↑
Year (Last Digits ofYear)	Fiscal Week

4. Capacitance in Micro-Farads with Tolerance
5. Genteq Catalog Model Number

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