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CAPACITORS

Radial electrolytic capacitors

Nover

SMD electrolytic capacitors

A range of miniature radial aluminium electrolytic capacitors for mounting directly to PCBs. All types are fully sleeved. Ripple current is quoted at 100Hz 85 deg C. Nover RE series



A range of surface mount aluminium electrolytic capacitors for use on high density circuit boards. RoHS compliant



Technical specification

Tolerance 20%
 Temperature range -40 to +85 deg C
 Leakage current 0.01CV or 3uA whichever is greater after 2 min

Case code	L	D	P	case code	L	D	P
A	11.0	5.0	2.0	F	16.0	10.0	5.0
B	11.0	6.3	2.5	G	20.0	10.0	5.0
C	11.0	8.0	3.5	H	21.0	12.5	5.0
D	12.0	6.3	2.5	I	25.0	12.5	5.0
E	12.5	10.0	5.0	J	25.0	16.0	7.5

Value	Case	Ripple	Order	Price each
Uf	code	Ma	code	1-99 100-999 1000+
16V 10uf	A	40	500-239	£0.03 £0.015 £0.013
16V 22uf	A	55	500-240	£0.03 £0.015 £0.013
16V 47uf	A	80	500-241	£0.03 £0.015 £0.013
16V 100uf	B	140	500-242	£0.04 £0.16 £0.015
16V 220uf	C	220	500-243	£0.05 £0.023 £0.022
16V 470uf	E	400	500-244	£0.07 £0.03 £0.029
16V 1000uf	G	720	500-245	£0.10 £0.052 £0.049
16V 2200uf	I	1200	500-270	£0.18 £0.12 £0.11
25V 10uf	A	45	500-246	£0.03 £0.012 £0.011
25V 22uf	A	60	500-247	£0.03 £0.012 £0.011
25V 47uf	A	90	500-248	£0.04 £0.017 £0.015
25V 100uf	B	150	500-249	£0.05 £0.022 £0.020
25V 220uf	E	260	500-250	£0.07 £0.032 £0.031
25V 470uf	F	500	500-251	£0.09 £0.053 £0.52
25V 1000uf	H	910	500-252	£0.14 £0.083 £0.082
25V 2200uf	J	1400	500-253	£0.29 £0.16 £0.14
50V 1000uf	I	1280	500-269	£0.34 £0.26 £0.20
63V 1uf	A	15	500-257	£0.03 £0.012 £0.011
63V 2.2uf	A	20	500-258	£0.04 £0.015 £0.013
63V 4.7uf	A	35	500-259	£0.04 £0.015 £0.013
63V 10uf	A	50	500-260	£0.04 £0.015 £0.013
63V 22uf	B	85	500-261	£0.05 £0.025 £0.019
63V 47uf	C	150	500-262	£0.07 £0.036 £0.029
63V 100uf	E	260	500-263	£0.10 £0.052 £0.051
63V 220uf	G	460	500-264	£0.15 £0.08 £0.078
63v 470uf	I	850	500-265	£0.27 £0.17 £0.15
100v 1uf	A	15	500-267	£0.03 £0.016 £0.013
100v 2.2uf	A	25	500-268	£0.03 £0.016 £0.013

Technical specification

Tolerance 20% at 120Hz; 20 deg C
 Temperature range -40 to +85 deg C
 Leakage current 0.01CV or 3uA whichever is greater

Value	Order	Price per pack 10
Uf	code	1-4 5-9 10+
16V 10uf	500-520	£0.40 £0.37 £0.33
16V 22uf	500-521	£0.40 £0.37 £0.33
16V 47uf	500-522	£0.45 £0.40 £0.36
16V 100uf	500-523	£0.55 £0.50 £0.45
16V 220uf	500-524	£0.77 £0.72 £0.65
16V 470uf	500-525	£1.50 £1.35 £1.20
35V 4.7uf	500-526	£0.40 £0.37 £0.33
35V 10uf	500-527	£0.47 £0.44 £0.39
35V 22uf	500-528	£0.62 £0.56 £0.50
50V 1uf	500-529	£0.40 £0.37 £0.33
50V 2.2uf	500-530	£0.40 £0.37 £0.33
50V 4.7uf	500-531	£0.40 £0.37 £0.33
50V 10uf	500-532	£0.50 £0.45 £0.40
50V 47uf	500-533	£0.76 £0.69 £0.62
50V 100uf	500-534	£1.49 £1.35 £1.20

Value	Reel	Order	Price per reel
Uf	Size	code	1-2 3+
16V 10uf	2K	500-535	£48.00 £43.50
16V 22uf	1K	500-536	£25.00 £22.50
16V 47uf	1K	500-537	£27.50 £24.50
16V 100uf	1K	500-538	£35.00 £29.90
16V 220uf	1K	500-539	£55.00 £49.00
16V 470uf	1K	500-540	£102.00 £93.00
35V 4.7uf	2K	500-541	£41.00 £37.00
35V 10uf	1K	500-542	£26.00 £23.50
35V 22uf	1K	500-543	£34.00 £29.90
50V 1uf	2K	500-544	£47.50 £43.00
50V 2.2uf	2K	500-545	£47.50 £43.00
50V 4.7uf	1K	500-546	£24.50 £21.50
50V 10uf	1K	500-547	£29.00 £25.00
50V 47uf	1K	500-548	£47.50 £44.00
50V 100uf	500	500-549	£49.00 £43.50

CAPACITORS

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Ultra miniature electrolytic capacitors

Nover

A range of 5mm ultra miniature capacitors for applications requiring low profile components.



Technical specification

Tolerance	20% @ 120Hz, 85 deg C		
Temperature range	-40 to +85 deg C		
Leakage current	0.01CV or 3uA whichever is greater after 2 min		
Case code	L	D	P
A	5.0	4.0	1.5
B	5.0	5.0	2.0
C	11.0	6.3	2.5

Value	Case	Ripple	Order	Price each		
				Uf	code	Ma
16V 10uf	A	18	500-310	£0.03	£0.015	£0.013
16V 47uf	C	65	500-311	£0.04	£0.018	£0.016
50V 1uf	A	6	500-312	£0.03	£0.015	£0.013
50V 2.2uf	A	7	500-313	£0.03	£0.015	£0.013
50V 4.7uf	B	20	500-314	£0.03	£0.015	£0.013

Low profile snap-in electrolytic capacitor

Samwha

A range of PCB mounting snap-in capacitors with a 10mm pitch. Terminal length 6mm. Load life 2000hr. Samwha HC series



Technical specification

Tolerance	20%					
Temperature range	-40 to +85 deg C					
Leakage current	3CV after 5 min					
Value	Case	Case	Ripple	Order	Manufacturer	
					Uf	diae
35V 10000uf	30	30	4.58	500-365	HC1V109M30030HA	
63V 4700uf	30	30	4.1	500-366	HC1J478M30030HA	
63V 10000uf	35	40	6.25	500-367	HC1J109M35040HA	
Value	Case	Ripple	Order	Price each		
				Uf	code	Ma
35V 10000uf	A	18	500-365	£0.95	£0.85	£0.75
63V 4700uf	C	65	500-366	£0.95	£0.85	£0.75
63V 10000uf	A	6	500-367	£1.99	£1.79	£1.59

Ceramic disc capacitors



Technical specification

Voltage	500V (25V 100nf only)			
Tolerance	10% (20% 100nf only)			
Lead pitch	2.5mm			
Type	Order	Price each		
	code	1-99	100-999	1000+
10pf ceramic disc	500-203	£0.03	£0.009	£0.008
12pf ceramic disc	500-212	£0.03	£0.009	£0.008
15pf ceramic disc	500-204	£0.03	£0.009	£0.008
18pf ceramic disc	500-213	£0.03	£0.009	£0.008
22pf ceramic disc	500-205	£0.03	£0.009	£0.008
27pf ceramic disc	500-214	£0.03	£0.009	£0.008
33pf ceramic disc	500-206	£0.03	£0.009	£0.008
39pf ceramic disc	500-215	£0.03	£0.009	£0.008
47pf ceramic disc	500-207	£0.03	£0.009	£0.008
56pf ceramic disc	500-216	£0.03	£0.009	£0.008
68pf ceramic disc	500-217	£0.03	£0.009	£0.008
82pf ceramic disc	500-218	£0.03	£0.009	£0.008
100pf ceramic disc	500-208	£0.03	£0.009	£0.008
120pf ceramic disc	500-219	£0.03	£0.009	£0.008
150pf ceramic disc	500-220	£0.03	£0.009	£0.008
180pf ceramic disc	500-221	£0.03	£0.009	£0.008
220pf ceramic disc	500-222	£0.03	£0.009	£0.008
270pf ceramic disc	500-223	£0.03	£0.009	£0.008
330pf ceramic disc	500-224	£0.03	£0.009	£0.008
390pf ceramic disc	500-225	£0.03	£0.009	£0.008
470pf ceramic disc	500-226	£0.03	£0.009	£0.008
560pf ceramic disc	500-227	£0.03	£0.009	£0.008
680pf ceramic disc	500-228	£0.03	£0.009	£0.008
820pf ceramic disc	500-229	£0.03	£0.009	£0.008
1nf ceramic disc	500-209	£0.03	£0.009	£0.008
1.2nf ceramic disc	500-230	£0.03	£0.009	£0.008
1.5nf ceramic disc	500-231	£0.03	£0.009	£0.008
1.8nf ceramic disc	500-232	£0.03	£0.009	£0.008
2.2nf ceramic disc	500-233	£0.03	£0.009	£0.008
2.7nf ceramic disc	500-234	£0.03	£0.009	£0.008
3.3nf ceramic disc	500-235	£0.03	£0.009	£0.008
3.9nf ceramic disc	500-236	£0.03	£0.009	£0.008
4.7nf ceramic disc	500-237	£0.03	£0.009	£0.008
6.8nf ceramic disc	500-238	£0.03	£0.009	£0.008
10nf ceramic disc	500-211	£0.03	£0.009	£0.008
22nf ceramic disc	500-210	£0.003	£0.009	£0.008
100nf ceramic disc	500-202	£0.003	£0.009	£0.008

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CAPACITORS

0603 Multilayer ceramic chip capacitors



A range of surface mount multilayer ceramic chip capacitors in industry standard 0603 style package. Nickel barrier terminations. Supplied in packs of 100 or full reels of 4000 pieces. RoHS compliant

Type	Order code	Price per pack 100	
		1-9	10+
NPO 5%			
10pf 50V	500-560	£0.59	£0.42
22pf 50V	500-561	£0.59	£0.42
33pf 50V	500-562	£0.59	£0.42
47pf 50V	500-563	£0.59	£0.42
68pf 50V	500-564	£0.59	£0.42
100pf 50V	500-565	£0.59	£0.42
150pf 50V	500-566	£0.59	£0.42
220pf 50V	500-567	£0.59	£0.42
X7R 10%			
1nF 50V	500-568	£0.59	£0.42
1n5 50V	500-569	£0.59	£0.42
2n2 50V	500-570	£0.59	£0.42
3n3 50V	500-571	£0.59	£0.42
4n7 50V	500-572	£0.59	£0.42
6n8 50V	500-573	£0.59	£0.42
10nF 50V	500-574	£0.59	£0.42

Type	Order code	Price per reel of 4000	
		1-4	5+
NPO 5%			
10pf 50V	500-575	£9.45	£8.75
22pf 50V	500-576	£9.45	£8.75
33pf 50V	500-577	£9.45	£8.75
47pf 50V	500-578	£9.45	£8.75
68pf 50V	500-579	£9.45	£8.75
100pf 50V	500-580	£9.45	£8.75
150pf 50V	500-581	£14.25	£12.50
220pf 50V	500-582	£16.50	£14.90
X7R 10%			
1nF 50V	500-583	£9.45	£8.75
1n5 50V	500-584	£9.45	£8.75
2n2 50V	500-585	£9.45	£8.75
3n3 50V	500-586	£9.45	£8.75
4n7 50V	500-587	£9.45	£8.75
6n8 50V	500-588	£9.45	£8.75
10nF 50V	500-589	£9.45	£8.75

0805 Multilayer ceramic chip capacitors



A range of surface mount multilayer ceramic chip capacitors in industry standard 0805 style package. Nickel barrier terminations. Supplied in packs of 100 or full reels of 4000 pieces. RoHS compliant

Type	Order code	Price per pack 100	
		1-9	10+
NPO 5%			
10pf 50V	500-600	£0.85	£0.67
22pf 50V	500-601	£0.85	£0.67
33pf 50V	500-602	£0.85	£0.67
47pf 50V	500-603	£0.85	£0.67
68pf 50V	500-604	£0.85	£0.67
100pf 50V	500-605	£0.85	£0.67
150pf 50V	500-606	£0.90	£0.70
220pf 50V	500-607	£0.90	£0.72
X7R 10%			
1nF 50V	500-608	£0.90	£0.70
2n2 50V	500-609	£0.90	£0.70
3n3 50V	500-610	£0.90	£0.70
4n7 50V	500-611	£0.90	£0.70
6n8 50V	500-612	£0.90	£0.70
10nF 50V	500-613	£0.90	£0.70

Type	Order code	Price per reel of 4000	
		1-4	5+
NPO 5%			
10pf 50V	500-614	£12.50	£11.50
22pf 50V	500-615	£12.50	£11.50
33pf 50V	500-616	£12.50	£11.50
47pf 50V	500-617	£12.50	£11.50
68pf 50V	500-618	£12.50	£11.50
100pf 50V	500-619	£12.50	£11.50
150pf 50V	500-620	£16.90	£15.90
220pf 50V	500-621	£16.90	£15.90
X7R 10%			
1nF 50V	500-622	£12.50	£11.25
2n2 50V	500-623	£12.50	£11.50
3n3 50V	500-624	£12.50	£11.50
4n7 50V	500-625	£12.90	£11.50
6n8 50V	500-626	£12.90	£11.50
10nF 50V	500-627	£12.90	£11.50

Metalised polyester capacitors

Metallised PEPT film capacitors protected by a hard, epoxy casing making them flame retardant. Supplied with crimped and croped leads for mounting on pcb's.

Technical specification

Operating temp -40 to +85 deg C

Tolerance 10%

Power factor 0.01

Body colour Orange

uf	nf	H	W	D	Lead dia	lead pitch
0.01	10	12	12.5	4	0.6	10.2
0.015	15	12	12.5	4	0.6	10.2
0.022	22	12	12.5	4	0.6	10.2
0.033	33	12	12.5	4	0.6	10.2
0.047	47	12	12.5	4	0.6	10.2
0.068	68	12.5	12.5	4.5	0.6	10.2
0.1	100	13	12.5	5	0.6	10.2
0.15	150	14	17.5	5	0.8	15.2
0.22	220	15	17.5	6	0.8	15.2
0.33	330	16	17.5	7	0.8	15.2
0.47	470	17.5	26	5.5	0.8	22.9

Value	Order code	Price each		
		1-99	100-999	1000+
0.01uf 400v polyester	500-321	£0.09	£0.08	£0.07
0.015uf 400v polyester	500-322	£0.09	£0.08	£0.07
0.022uf 400v polyester	500-323	£0.09	£0.08	£0.07
0.033uf 250v polyester	500-324	£0.09	£0.08	£0.07
0.047uf 250v polyester	500-325	£0.10	£0.08	£0.07
0.068uf 250v polyester	500-326	£0.10	£0.08	£0.07
0.1uf 250v polyester	500-320	£0.13	£0.105	£0.095
0.15uf 250v polyester	500-327	£0.16	£0.15	£0.14
0.22uf 250v polyester	500-328	£0.16	£0.15	£0.14
0.33uf 250v polyester	500-329	£0.20	£0.17	£0.14
0.47uf 250v polyester	500-330	£0.20	£0.17	£0.14

Vishay



Miniature polyester capacitors

A range of miniature metallised polyester capacitors in a 5mm pitch incapsulated in a plastic UL94V-0 rated case sealed with Epoxy resin.



Technical specification

Operating temp -55 to +100 deg C

Tolerance 10%

Value	H	D	Order code	Price each		
				1-99	100-999	1000+
1nF	6.5	2.5	500-355	£0.04	£0.022	£0.019
2n2	6.5	2.5	500-356	£0.04	£0.022	£0.019
4n7	6.5	2.5	500-357	£0.04	£0.022	£0.019
10nF	6.5	2.5	500-358	£0.04	£0.022	£0.019
22nF	6.5	2.5	500-359	£0.04	£0.022	£0.019
47nF	6.5	2.5	500-360	£0.04	£0.022	£0.019
100nF	6.5	2.5	500-361	£0.04	£0.022	£0.019

Super capacitors

A radial high capacitance double layer electrolytic capacitor suitable for memory backup

Technical specification

Operating temp -20 to +40 deg C

Tolerance -20% to +40%

Pitch 5mm

Value	Order code	Price each		
		1-24	25-99	100+
10F 2.5V	500-503	£2.25	£2.05	£1.85

Panasonic

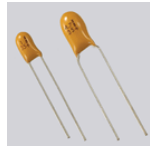


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CAPACITORS

Tantalum bead

A range of Tantalum bead capacitors suitable for coupling, decoupling and timing circuits. Kingtronics TKT range.



Technical specification

Operating temp	-55 to +125 deg C
Tolerance	20%
Leakage current	<0.01CV or 5uA whichever is greater

Value	Order code	Price each		
		1-99	100-999	1000+
1uF 35V Tantalum 5.0mm	500-331	£0.07	£0.045	£0.038
10uF 16V Tantalum 5.0mm	500-332	£0.09	£0.06	£0.052
22uF 16V Tantalum 5.0mm	500-333	£0.15	£0.11	£0.09

Multilayer Ceramic

Radial multilayer ceramic capacitors

Kingtronics *new*



Technical specification

Operating temp	NPO -55 to +125 deg C Y5V -25 to +85 deg C
Tolerance	NPO 5%, Y5V -20 to +80
Pitch	2.5mm

Value	Order code	Price each		
		1-99	100-999	1000+
150PF multilayer ceramic 2.5mm	500-700	£0.07	£0.045	£0.038
47NF Y5V multilayer cer 2.5mm	500-701	£0.05	£0.035	£0.021
220NF Y5V Multilayer cer 2.5mm	500-702	£0.07	£0.045	£0.033

Kingtronics

Polypropylene film trimmers

Miniature single turn trimmers with a polypropylene dielectric. 808 series. RoHS compliant



Technical specification

Voltage rating	250v
Q min @1MHz	100
Operating temp	-40 to + 70 deg C

Type	Order code	Price each	
		1-99	100+
2-22pf green	500-201	£0.43	£0.40
5.5-65pf yellow	500-200	£0.62	£0.55

Miniature ceramic trimmers

Murata

Miniature single turn ceramic trimmer with connections on a 5mm pitch for direct mounting onto PCBs. Trimmer fits flush to the PCB with a height of 5mm. Body dia 6mm



Technical specification

Voltage rating	50v
Q min @1MHz	300
Temp coefficient	300ppm deg C

Type	Order code	Price each		
		1-99	100-499	500+
6-50pf orange	500-400	£0.39	£0.33	£0.31

Miniature tuning capacitor

A miniature tuning capacitor suitable for MK484 circuits and crystal sets. It comprises AM sections of 126pF with trimmers and FM sections of 20pF with trimmers. Control shaft is 6mm diameter flatted with an M2.5 thread. Rotation 180 deg. Max voltage 100V
Dimensions 20 x 20 x 12.5mm



Type	Order code	Price each	
		1-24	25+
Miniature tuning cap	500-410	£0.70	£0.52