

# STACKED CAPACITORS

X7R AND NPO  
MAXIMUM CAPACITANCE (µF)

Ex: S201NP0134J1N3  
(.13µF, 25V, .200" total height)

Ex: S208X7R245K2J2  
(2.4µF, 50V, .220" total height)

Most popular sizes  
shown in yellow

PRESIDIO CASE SIZE																				"B" Ht. Max. inch (mm)	No. of Caps per stack	
Case Code	08		17		32		36		16		01		47		42		21		06			
Dielectric	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO		
25V (voltage code=1)	1.4	.036	1.8	.045	2.0	.050	2.0	.050	2.3	.060	2.5	.065	3.0	.080	3.3	.080	3.9	.10	5.0	.13	.150 (3.81)	1
	2.8	.072	3.6	.090	4.0	.10	4.0	.10	4.6	.12	5.0	.13	6.0	.16	6.6	.16	7.8	.20	10	.26	.200 (5.08)	2
	4.2	.11	5.4	.13	6.0	.15	6.0	.15	6.9	.18	7.5	.19	9.0	.24	10	.24	11	.30	15	.39	.275 (6.99)	3
	--	--	7.2	.18	--	--	--	--	9.2	.24	10	.26	12	.32	--	--	15	.40	20	.52	.350 (8.89)	4
	--	--	9.0	.22	--	--	--	--	11	.30	12	.32	15	.40	--	--	19	.50	25	.65	.425 (10.80)	5
	--	--	11	.27	--	--	--	--	14	.36	15	.39	18	.48	--	--	23	.60	30	.78	.500 (12.70)	6
50V (voltage code=2)	1.2	.030	1.5	.040	1.7	.040	1.7	.040	1.9	.050	2.1	.055	2.7	.070	2.7	.070	3.3	.080	4.5	.11	.150 (3.81)	1
	2.4	.060	3.0	.080	3.4	.080	3.4	.080	3.8	.10	4.2	.11	5.4	.14	5.4	.14	6.6	.16	9.0	.22	.220 (5.59)	2
	3.6	.090	4.5	.12	5.1	.12	5.1	.12	5.7	.15	6.3	.16	8.1	.21	8.1	.21	10	.24	13	.33	.310 (7.87)	3
	--	--	6.0	.16	--	--	--	--	7.6	.20	8.4	.22	10	.28	--	--	13	.32	18	.44	.400 (10.16)	4
	--	--	7.5	.20	--	--	--	--	9.5	.25	10	.27	13	.35	--	--	16	.40	22	.55	.490 (12.45)	5
	--	--	--	--	--	--	--	--	11	.30	12	.33	16	.42	--	--	19	.48	27	.66	.580 (14.73)	6
100V (voltage code=3)	.75	.020	1.0	.025	1.1	.030	1.1	.030	1.2	.035	1.4	.040	1.8	.050	1.8	.050	2.2	.060	3.0	.080	.160 (4.06)	1
	1.5	.040	2.0	.050	2.2	.060	2.2	.060	2.4	.070	2.8	.080	3.6	.10	3.6	.10	4.4	.12	6.0	.16	.280 (7.11)	2
	--	--	3.0	.075	--	--	--	--	3.6	.10	4.2	.12	5.4	.15	--	--	6.6	.18	9.0	.24	.400 (10.16)	3
	--	--	4.0	.10	--	--	--	--	4.8	.14	5.6	.16	7.2	.20	--	--	8.8	.24	12	.32	.520 (13.21)	4
	--	--	--	--	--	--	--	--	6.0	.17	7.0	.20	9.0	.25	--	--	11	.30	15	.40	.640 (16.26)	5
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.760 (19.30)	6
200V (voltage code=4)	0.22	.012	0.3	.016	.36	.018	.36	.018	.39	.020	0.42	.022	.60	.027	.60	.030	.70	.036	1.0	.047	.160 (4.06)	1
	0.44	.024	0.6	.032	.72	.036	.72	.036	.78	.040	0.84	.044	1.2	.054	1.2	.060	1.4	.072	2.0	.094	.280 (7.11)	2
	--	--	0.9	.048	--	--	--	--	1.1	.060	1.2	.066	1.8	.071	--	--	2.1	.11	3.0	.14	.400 (10.16)	3
	--	--	1.2	.064	--	--	--	--	1.5	.080	1.7	.088	2.4	.11	--	--	2.8	.14	4.0	.19	.520 (13.21)	4
	--	--	--	--	--	--	--	--	1.9	.10	2.1	.11	3.0	.13	--	--	3.5	.18	5.0	.23	.640 (16.26)	5
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.760 (19.30)	6
500V (voltage code=6)	0.11	.0060	0.14	.0075	.15	.0080	.15	.0080	0.18	.010	0.19	.011	.25	.013	.25	.013	.30	.016	.42	.022	.160 (4.06)	1
	0.22	.012	0.28	.015	.30	.016	.30	.016	0.36	.020	0.38	.022	.50	.026	.50	.026	.60	.032	.84	.044	.280 (7.11)	2
	--	--	0.42	.022	--	--	--	--	0.54	.030	0.57	.033	.75	.039	--	--	.90	.048	1.2	.066	.400 (10.16)	3
	--	--	0.56	.030	--	--	--	--	0.72	.040	0.76	.044	1.0	.052	--	--	1.2	.064	1.6	.088	.520 (13.21)	4
	--	--	--	--	--	--	--	--	0.90	.050	0.95	.055	1.2	.065	--	--	1.5	.080	2.1	.11	.640 (16.26)	5
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.760 (19.30)	6
DIMENSIONS inches (mm)	.215 (5.46)		.185 (4.70)		.300 (7.62)		.355 (9.02)		.235 (5.97)		.275 (6.99)		.310 (7.87)		.400 (10.16)		.300 (7.62)		.375 (9.53)		C ±.025 (0.64)	
	.215 (5.46)		.275 (6.99)		.180 (4.57)		.150 (3.81)		.275 (6.99)		.275 (6.99)		.270 (6.86)		.220 (5.59)		.330 (8.38)		.375 (9.53)		D (Max) Width	
	.240 (6.10)		.210 (5.33)		.325 (8.26)		.380 (9.65)		.260 (6.60)		.300 (7.62)		.335 (8.51)		.425 (10.80)		.325 (8.26)		.400 (10.16)		E (Max) Length	
Leads per Side	2		3		2		2		3		3		3		2		3		4			
Chip Size	2018		1725		2917		3415		2225		2627		3026		3920		2832		3736			

Presidio's most popular sizes are highlighted. Choose these for best price, delivery and availability.

**Notes:**

- "B" height dimensions are based on commonly ordered parts. Custom heights are available.
- 75V parts are also available. Capacitance values of 75V parts are half-way between 50V and 100V parts.
- Vertical stacks are sometimes useful for reducing the footprint; for availability, consult factory.
- Other sizes, capacitances, and voltage ratings are available. Consult factory.

**HOW TO ORDER**

—	S	5	01	X7R	106	K	2	J	3
Optional Screening Code	Configuration	No. of Caps	Case Code	Dielectric	Capacitance	Capacitance Tolerance	Voltage	Lead Style	No. of Leads
HR or SR (See pg. 7)	Stacked Capacitor Assembly	Number of Capacitors per Stack	See Above	X7R NPO	Capacitance (in picofarads): Two significant figures followed by the number of zeros. Example: 103=10,000 pF=.01µF	F = ± 1% (NPO only) G = ± 2% (NPO only) J = ± 5% (NPO only) K = ± 10% M = ± 20% Z = -20%/+80%	1 = 25V 2 = 50V 3 = 100V 4 = 200V 6 = 500V	J = Leads formed under G = Leads formed out N = Through-hole S = See pages 12 & 13	Number of Leads per Side (See Above)

# STACKED CAPACITORS

## X7R AND NPO

### MAXIMUM CAPACITANCE (µF)

Ex: 5205NP0324K1J4  
(.32µF, 25V, .200" total height)

PRESIDIO CASE SIZE																		"B" Ht. Max. inch (mm)	No. of Caps per stack	
Case Code	02		03		07		37		05		04		48		44		13			
Dielectric	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO	X7R	NPO		
25V (voltage code=1)	5.6	.14	6.0	.15	6.5	.17	6.5	.17	7.0	.16	8.0	.20	8.0	.20	13	.33	20	.50	.150 (3.81)	1
	11	.28	12	.30	13	.34	13	.34	14	.32	16	.40	16	.40	26	.66	40	1.0	.200 (5.08)	2
	17	.42	18	.45	19	.51	19	.51	21	.48	24	.60	24	.60	39	1.0	60	1.5	.275 (6.99)	3
	22	.56	24	.60	26	.68	26	.68	28	.64	32	.80	32	.80	52	1.3	80	2.0	.350 (8.89)	4
	28	.70	30	.75	32	.85	32	.85	35	.80	40	1.0	40	1.0	65	1.6	100	2.5	.425 (10.80)	5
	33	.84	36	.90	39	1.0	39	1.0	42	.96	48	1.2	48	1.2	78	2.0	120	3.0	.500 (12.70)	6
50V (voltage code=2)	4.7	.12	5.0	.13	5.6	.14	5.6	.14	5.6	.14	6.8	.17	6.8	.17	10	.27	18	.40	.150 (3.81)	1
	9.4	.24	10	.26	11	.28	11	.28	11	.28	13	.34	13	.34	20	.54	36	.80	.220 (5.59)	2
	14	.36	15	.39	16	.42	16	.42	17	.42	20	.51	20	.51	30	.71	54	1.2	.310 (7.87)	3
	19	.48	20	.52	22	.56	22	.56	22	.56	27	.68	27	.68	40	1.1	72	1.6	.400 (10.16)	4
	23	.60	25	.65	28	.70	28	.70	28	.70	34	.85	34	.85	50	1.3	90	2.0	.490 (12.45)	5
	28	.72	30	.78	33	.84	33	.84	33	.84	41	1.0	41	1.0	60	1.6	110	2.4	.580 (14.73)	6
75V (voltage code=2)	3.2	.085	3.3	.090	3.7	.10	3.7	.10	4.0	.10	4.5	.12	4.5	.12	7.0	.20	12	.30	.160 (4.06)	1
	6.4	.17	6.6	.18	7.4	.20	7.4	.20	8.0	.20	9.0	.24	9.0	.24	14	.40	24	.60	.280 (7.11)	2
	9.6	.25	10	.27	11	.30	11	.30	12	.30	13	.36	13	.36	21	.60	36	.90	.400 (10.16)	3
	12	.34	13	.36	15	.40	15	.40	16	.40	18	.48	18	.48	28	.80	48	1.2	.520 (13.21)	4
	16	.42	16	.45	18	.50	18	.50	20	.50	22	.60	22	.60	35	1.0	60	1.5	.640 (16.26)	5
	--	--	--	--	--	--	--	--	--	--	--	--	--	27	.72	42	1.2	72	1.8	.760 (19.30)
100V (voltage code=3)	1.0	.050	1.0	.050	1.2	.060	1.2	.060	1.2	.056	1.5	.075	1.5	.075	2.2	.12	3.5	.18	.160 (4.06)	1
	2.0	.10	2.0	.10	2.4	.12	2.4	.12	2.4	.11	3.0	.15	3.0	.15	4.4	.24	7.0	.36	.280 (7.11)	2
	3.0	.15	3.0	.15	3.6	.18	3.6	.18	3.6	.17	4.5	.22	4.5	.22	6.6	.36	10	.54	.400 (10.16)	3
	4.0	.20	4.0	.20	4.8	.24	4.8	.24	4.8	.22	6.0	.30	6.0	.30	8.8	.48	14	.72	.520 (13.21)	4
	5.0	.25	5.0	.25	6.0	.30	6.0	.30	6.0	.28	7.5	.37	7.5	.37	11	.60	17	.90	.640 (16.26)	5
	--	--	--	--	--	--	--	--	--	--	--	--	--	9.0	.44	13	.72	21	1.1	.760 (19.30)
200V (voltage code=4)	1.0	.050	1.0	.050	1.2	.060	1.2	.060	1.2	.056	1.5	.075	1.5	.075	2.2	.12	3.5	.18	.160 (4.06)	1
	2.0	.10	2.0	.10	2.4	.12	2.4	.12	2.4	.11	3.0	.15	3.0	.15	4.4	.24	7.0	.36	.280 (7.11)	2
	3.0	.15	3.0	.15	3.6	.18	3.6	.18	3.6	.17	4.5	.22	4.5	.22	6.6	.36	10	.54	.400 (10.16)	3
	4.0	.20	4.0	.20	4.8	.24	4.8	.24	4.8	.22	6.0	.30	6.0	.30	8.8	.48	14	.72	.520 (13.21)	4
	5.0	.25	5.0	.25	6.0	.30	6.0	.30	6.0	.28	7.5	.37	7.5	.37	11	.60	17	.90	.640 (16.26)	5
	--	--	--	--	--	--	--	--	--	--	--	--	--	9.0	.44	13	.72	21	1.1	.760 (19.30)
500V (voltage code=6)	.44	.024	.46	.025	.50	.027	.50	.027	0.55	.028	.60	.035	.60	.035	1.0	.056	1.6	.080	.160 (4.06)	1
	.88	.048	.92	.050	1.0	.054	1.0	.054	1.1	.056	1.2	.070	1.2	.070	2.0	.11	3.2	.16	.280 (7.11)	2
	1.3	.072	1.3	.075	1.5	.071	1.5	.071	1.6	.084	1.8	.10	1.8	.10	3.0	.16	4.8	.24	.400 (10.16)	3
	1.7	.096	1.8	.10	2.0	.11	2.0	.11	2.2	.11	2.4	.14	2.4	.14	4.0	.22	6.4	.32	.520 (13.21)	4
	2.2	.12	2.3	.12	2.5	.13	2.5	.13	2.7	.14	3.0	.17	3.0	.17	5.0	.28	8.0	.40	.640 (16.26)	5
	--	--	--	--	--	--	--	--	--	--	--	--	--	3.6	.21	6.0	.33	9.6	.48	.760 (19.30)
DIMENSIONS inches (mm)	.350 (8.89)		.415 (10.54)		.375 (9.53)		.550 (13.97)		.400 (10.16)		.475 (12.07)		.400 (10.16)		.375 (9.53)		.450 (11.43)		C ±.025 (0.64)	
	.400 (10.16)		.385 (9.78)		.425 (10.80)		.310 (7.87)		.425 (10.80)		.420 (10.67)		.500 (12.70)		.825 (20.96)		1.075 (27.31)		D (Max) Width	
	.375 (9.53)		.440 (11.18)		.400 (10.16)		.575 (14.61)		.440 (11.18)		.500 (12.70)		.425 (10.80)		.400 (10.16)		.500 (12.70)		E (Max) Length	
Leads per Side	4		4		4		3		4		4		5		8		10			
Chip Size	3439		4036		3640		5330		3941		4540		3949		3680		4399			

See Note 2

Presidio's most popular sizes are highlighted. Choose these for best price, delivery and availability.

**Notes:**

1. "B" height dimensions are based on commonly ordered parts. Custom heights are available.
2. 75V parts are also available. Capacitance values of 75V parts are half-way between 50V and 100V parts.
3. Vertical stacks are sometimes useful for reducing the footprint; for availability, consult factory.
4. Other sizes, capacitances, and voltage ratings are available. Consult factory.

Ex: 5513X7R805K6G10  
(8µF, 500V, .640" total height)

**HOW TO ORDER**

—	S	4	05	X7R	226	K	2	J	4
Optional Screening Code	Configuration	No. of Caps	Case Code	Dielectric	Capacitance	Capacitance Tolerance	Voltage	Lead Style	No. of Leads
HR or SR (See pg. 7)	Stacked Capacitor Assembly	Number of Capacitors per Stack	See Above	X7R NPO	Capacitance (in picofarads): Two significant figures followed by the number of zeros. Example: 103=10,000 pF=.01µF	F = ± 1% (NPO only) G = ± 2% (NPO only) J = ± 5% (NPO only) K = ± 10% M = ± 20% Z = -20%/+80%	1 = 25V 2 = 50V 3 = 100V 4 = 200V 6 = 500V	J = Leads formed under G = Leads formed out N = Through-hole S = See pages 12 & 13	Number of Leads per Side (See Above)



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