

# CERAMIC STACKED CAPACITORS

X7R AND NPO  
MAXIMUM CAPACITANCE (µF)

Many other case sizes available.  
Please contact factory.

Most popular sizes  
shown in yellow

Ex: HRS208X7R245K2J2  
(2.4µF, 50V, .220" total height)

PRESIDIO CASE SIZE CODE																				"B" Ht. Max. inch (mm)	No. of Chips 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	3.0	.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	6.0	.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	9.0	.24	11	.30	15	.39	.275 (6.99)	3	
	—	—	7.2	.18	—	—	—	—	—	9.2	.24	10	.26	12	.32	12	—	15	.40	20	.52	.350 (8.89)	4
	—	—	9.0	.22	—	—	—	—	—	11	.30	12	.32	15	.40	15	—	19	.50	25	.65	.425 (10.80)	5
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	10	—	13	.32	18	.44	.400 (10.16)	4
	—	—	7.5	.20	—	—	—	—	—	9.5	.25	10	.27	13	.35	13	—	16	.40	22	.55	.490 (12.45)	5
75V See Note 2	—	—	—	—	—	—	—	—	11	.30	12	.33	16	.42	16	—	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	5.4	—	6.6	.18	9.0	.24	.400 (10.16)	3	
	—	—	4.0	.10	—	—	—	—	4.8	.14	5.6	.16	7.2	.20	7.2	—	8.8	.24	12	.32	.520 (13.21)	4	
	—	—	—	—	—	—	—	—	6.0	.17	7.0	.20	9.0	.25	9.0	—	11	.30	15	.40	.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	1.8	—	2.1	.11	3.0	.14	.400 (10.16)	3	
	—	—	1.2	.064	—	—	—	—	1.5	.080	1.7	.088	2.4	.11	2.4	—	2.8	.14	4.0	.19	.520 (13.21)	4	
	—	—	—	—	—	—	—	—	1.9	.10	2.1	.11	3.0	.13	3.0	—	3.5	.18	5.0	2.3	.640 (16.26)	5	
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	.75	—	.90	.048	1.2	.066	.400 (10.16)	3	
	—	—	0.56	.030	—	—	—	—	0.72	.040	0.76	.044	1.0	.052	1.0	—	1.2	.064	1.6	.088	.520 (13.21)	4	
	—	—	—	—	—	—	—	—	0.90	.050	0.95	.055	1.2	.065	1.2	—	1.5	.080	2.1	.11	.640 (16.26)	5	
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		Height dimensions based on commonly ordered parts. Custom heights available.		
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. Lower, intermediate and higher voltages available (i.e. 16V, 150V, 300V, 600V, etc).
- Vertical stacks are sometimes useful for reducing the footprint; for availability, consult factory.
- Other sizes, capacitances, lead frames, dielectrics (BP, BX, BR, BQ), and voltage ratings are available. Consult factory.

## HOW TO ORDER OUR CERAMIC STACKED CAPACITORS

HR	S	5	01	X7R	106	K	2	J	3
Optional Screening Code	Configuration	No. of Chips	Case Code	Dielectric Type	Capacitance Code	Capacitance Tolerance *	Voltage Code	Lead Frame Style	No. of Leads
Leave Blank for Commercial HR SR (See pg. 7)	Stacked Capacitor Assembly	Number of Chips per Stack	See Above	X7R NPO	Capacitance (in picofarads): Two significant figures followed by the number of zeros. Examples: 103=10,000 pF=.01 µF 106=10,000,000 pF=10 µF	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)

\* Unless otherwise specified.  
Customer SCD takes precedence.



# CERAMIC STACKED CAPACITORS

X7R AND NPO

MAXIMUM CAPACITANCE (µF)

Many other case sizes available.  
Please contact factory.

Ex: HRS205NP0324K1J4  
(.32µF, 25V, .200" total height)

PRESIDIO CASE SIZE CODE																		"B" Ht. Max. inch (mm)	No. of Chips 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 See Note 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
100V (Voltage Code=3)	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)	6
	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)
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)	6
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)	6
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		Height dimensions based on commonly ordered parts. Custom heights available.	
Chip Size	3439		4036		3640		5330		3941		4540		3949		3680		4399			

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. Lower, intermediate and higher voltages available (i.e. 16V, 150V, 300V, 600V, etc).
- Vertical stacks are sometimes useful for reducing the footprint; for availability, consult factory.
- Other sizes, capacitances, lead frames, dielectrics (BP, PX, BR, BQ), and voltage ratings are available. Consult factory.

Ex: HRS513X7R805K6G10  
(8µF, 500V, .640" total height)

## HOW TO ORDER OUR CERAMIC STACKED CAPACITORS

HR	S	4	05	X7R	226	K	2	J	4
Optional Screening Code	Configuration	No. of Chips	Case Code	Dielectric Type	Capacitance Code	Capacitance Tolerance *	Voltage Code	Lead Frame Style	No. of Leads
Leave Blank for Commercial HR SR (See pg. 7)	Stacked Capacitor Assembly	Number of Chips per Stack	See Above	X7R NPO	Capacitance (in picofarads): Two significant figures followed by the number of zeros. Examples: 103=10,000 pF=.01 µF 226=22,000,000 pF=22 µF	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)

\* Unless otherwise specified. Customer SCD takes precedence.

