

## Buried Single Layer™ Capacitors Application Ratings

**INDUSTRIAL RATING;** FIT calculation using 65°C continuous temperature.\*

Dielectric Material	Q	Temperature Coefficient	D.W. VDC	Working VDC	Value (pF)	Size 1010 1020	Size 1212 1224	Size 1515 1530	Size 1717 1734	Size 2020 2040	Size 2222 2244	Size 2525 2550	Size 2727 2754	Size 3030 3060	Size 3535
NPQ	Highest	0 ± 25 ppm/C	250	100	Min. Max.	- -	- -	0.1 1.5	0.2 1.8	0.2 2.7	0.2 3.0	0.3 3.6	0.3 3.9	0.6 6.8	0.8 9.1
			125	50	Min. Max.	0.5 0.7	0.8 1.0	1.8 2.2	2.0 2.7	3.0 3.9	3.3 4.3	3.9 5.1	4.3 5.6	7.5 9.1	10 12
			62.5	25	Max.	0.8	1.2	2.4	3.0	4.3	4.7	5.6	6.2	10	15
			40	16	Max.	0.9	1.5	2.7	3.6	4.7	5.1	6.2	6.8	12	18
			25	10	Max.	1.3	2.0	3.9	5.1	6.8	7.5	9.1	10	18	24
NPO	High	0 ± 30 ppm/C	250	100	Min. Max.	- -	- -	0.6 4.7	0.7 5.6	1.0 8.2	1.2 9.1	1.5 10	1.5 12	2.4 20	3.3 30
			125	50	Min. Max.	1.5 2.2	2.4 3.3	5.1 6.8	6.2 8.2	9.1 10	10 12	12 15	15 18	22 30	33 43
			62.5	25	Min.	2.4	3.9	7.5	10	12	15	18	20	33	47
			40	16	Min.	2.7	4.3	8.2	12	15	18	20	22	39	56
			25	10	Min.	3.9	6.2	12	15	22	24	30	33	56	75
BX	Broadband DC Block or RF Bypass	± 15%	250	100	Min. Max.	- -	- -	15 150	18 180	22 240	24 270	30 330	33 360	51 620	75 910
			125	50	Min. Max.	6.2 68	10 100	180 200	200 270	270 360	300 390	360 470	390 560	680 910	1000 1200
			62.5	25	Max.	82	120	240	300	390	430	620	750	1000	1500
			40	16	Max.	100	150	270	360	510	620	820	1000	1200	1800
			25	10	Max.	120	180	330	430	560	750	1000	1200	1800	2200



## Buried Single Layer™ Capacitors Application Ratings

**MILITARY RATING;** FIT calculation using 85°C continuous temperature.\*

Dielectric Material	Q	Temperature Coefficient	D.W. VDC	Working VDC	Value (pF)	Size 1010	Size 1212	Size 1515	Size 1717	Size 2020	Size 2222	Size 2525	Size 2727	Size 3030	Size 3535
						1020	1224	1530	1734	2040	2244	2550	2754	3060	
NPQ	Highest	0 ± 25 ppm/C	250	100	Min. Max.	- -	- -	0.1 1.0	0.2 1.2	0.2 1.8	0.2 2.0	0.3 2.4	0.3 2.4	0.6 4.3	0.8 6.2
			125	50	Min. Max.	0.3 0.5	0.5 0.8	1.2 1.5	1.5 1.8	2.0 2.7	2.2 3.0	2.7 3.6	2.7 3.9	4.6 6.8	6.8 9.1
			62.5	25	Max.	0.6	0.9	1.8	2.2	3.3	3.6	4.3	4.7	7.5	10
			40	16	Max.	0.7	1.0	2.2	2.7	3.9	4.3	5.1	5.6	9.1	12
			25	10	Max.	0.8	1.2	2.4	3.0	4.3	4.7	5.6	6.2	10	15
NPO	High	0 ± 30 ppm/C	250	100	Min. Max.	- -	- -	0.6 3.0	0.7 3.9	1.0 5.6	1.2 5.6	1.5 6.9	1.5 7.5	2.4 12	3.3 20
			125	50	Min. Max.	1.0 1.5	1.5 2.4	3.3 4.7	4.3 5.6	6.2 8.2	6.2 9.1	7.5 10	8.2 12	15 20	22 30
			62.5	25	Min.	1.8	2.7	5.6	6.8	9.1	10	12	15	24	36
			40	16	Min.	2.2	3.3	6.8	8.2	10	12	15	18	30	43
			25	10	Min.	2.4	3.9	7.5	10	12	15	18	20	33	47
BX	Broadband DC Block or RF Bypass	± 15%	250	100	Min. Max.	- -	- -	15 82	18 100	22 150	24 200	30 270	33 330	51 390	75 560
			125	50	Min. Max.	6.2 47	10 75	91 100	120 150	180 220	220 270	300 360	360 430	430 560	620 820
			62.5	25	Max.	56	91	120	180	240	330	430	510	680	1000
			40	16	Max.	68	100	150	220	300	390	510	620	820	1200
			25	10	Max.	82	120	180	240	330	470	560	680	910	1500



## Buried Single Layer™ Capacitors Application Ratings

**SPACE/MILITARY RATING;** FIT calculation using 100°C continuous temperature.\*

Dielectric Material	Q	Temperature Coefficient	D.W. VDC	Working VDC	Value (pF)	Size 1010	Size 1212	Size 1515	Size 1717	Size 2020	Size 2222	Size 2525	Size 2727	Size 3030	Size 3535
						1020	1224	1530	1734	2040	2244	2550	2754	3060	
NPQ	Highest	0 ± 25 ppm/C	250	100	Min. Max.	- -	- -	0.1 0.5	0.2 0.6	0.2 0.9	0.2 1.0	0.3 1.2	0.3 1.2	0.6 2.2	0.8 3.0
			125	50	Min. Max.	- -	0.1 0.5	0.6 1.0	0.7 1.2	1.0 1.8	1.2 2.0	1.5 2.4	1.5 2.4	2.4 4.3	3.3 6.2
			62.5	25	Max.	-	0.8	1.5	1.8	2.7	3.0	3.6	3.9	6.8	9.1
			40	16	Max.	-	0.9	1.8	2.2	3.3	3.6	4.3	4.7	7.5	10
NPO	High	0 ± 30 ppm/C	250	100	Min. Max.	- -	- -	0.6 1.5	0.7 2.0	1.0 2.7	1.2 3.0	1.5 3.6	1.5 3.9	2.4 6.8	3.3 10
			125	50	Min. Max.	- -	0.6 1.5	1.8 3.0	2.2 3.9	3.0 5.6	3.3 5.6	3.9 6.9	4.3 7.5	7.5 12	12 20
			62.5	25	Min.	-	2.4	4.7	5.6	8.2	9.1	10	12	20	30
			40	16	Min.	-	2.7	5.6	6.8	9.1	10	12	15	24	36
BX	Broadband DC Block or RF Bypass	± 15%	250	100	Min. Max.	- -	- -	15 47	18 62	22 82	24 91	30 100	33 120	51 200	75 300
			125	50	Min. Max.	- -	6.2 56	51 82	68 100	91 150	100 180	120 270	150 330	220 430	330 620
			62.5	25	Max.	-	75	100	120	180	270	330	390	470	680
			40	16	Max.	-	82	120	150	270	330	390	430	750	1000

\* Rated temperature range from -55°C to 125°C applies to NPQ, NPO and BX materials.

