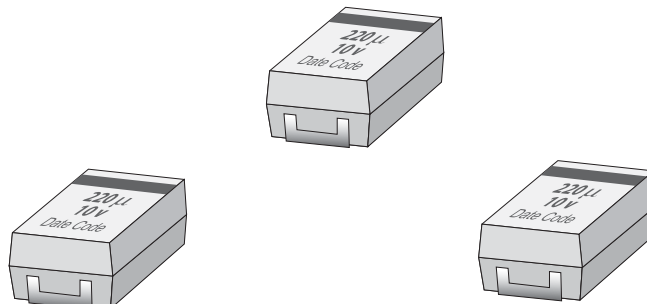


Standard and Extended Range



FEATURES

- **Lead-free, RoHS compliant**
- Meets or exceeds EIA 535 BAAC and IECQ standards (QC300801/US0001, IS - 28)
- Capacitance range: 0.1 μf to 1500 μf
- Voltage range: 4 to 50 WVDC
- Down sized, extended range values
- **Low profile sizes (see low profile section)**
- Surge tested for maximum robustness
- Operating temperature range -55°C to +125°C, 2/3 x Vr (linear derating) above +85°C
- Precision molded case with flat surfaces for vacuum pick-up
- Laser marking and bold videcon - readable polarity stripe
- Compliant terminations
- Glue pad on underside for bonding to circuit board prior to soldering
- Encapsulant material satisfies the UL 94 VO flammability classification
- MSL (moisture sensitivity level) per IPC/Jedec J-STD-020B is level 1



Lead Free



**RoHS
compliant**

Capacitance (μ F)	Case Size	Nemco Part No.	DCL (μ A) max.	$\tan \delta$ max. (%)	ESR @ 100kHz max. (Ω)
---------------------------	--------------	----------------	------------------------	---------------------------	--------------------------------------

4 V DC @ 85°C

33.0	A	PCT33 / 4A _	1.3	6	3.0
47.0	A	PCT47 / 4A _	1.9	8	2.6
68.0	A	PCT68 / 4A _	2.7	10	1.5
68.0	B	PCT68 / 4B _	2.7	8	1.8
100.0	A	PCT100 / 4A _	4.0	30	1.4
100.0	B	PCT100 / 4B _	4.0	8	0.9
150.0	B	PCT150 / 4B _	6.0	8	1.5
150.0	C	PCT150 / 4C _	6.0	6	0.3
220.0	B	PCT220 / 4B _	8.8	12	1.1
220.0	C	PCT220 / 4C _	8.8	8	1.2
220.0	D	PCT220 / 4D _	8.8	8	0.9
330.0	C	PCT330 / 4C _	13.2	8	0.9
330.0	D	PCT330 / 4D _	13.2	8	0.9
470.0	C	PCT470 / 4C _	18.8	14	0.3
470.0	D	PCT470 / 4D _	18.8	12	0.9
470.0	H	PCT470 / 4H _	18.8	10	0.5
680.0	D	PCT680 / 4D _	27.2	14	0.5
680.0	H	PCT680 / 4H _	27.2	14	0.9
1000.0	D	PCT1000 / 4D _	40.0	60	0.2
1000.0	H	PCT1000 / 4H _	40.0	14	0.4
1500.0	H	PCT1500 / 4H _	60.0	30	0.2

10 V DC @ 85°C

2.2	A	PCT2.2 / 10A _	0.5	6	7.0
4.7	A	PCT4.7 / 10A _	0.5	6	5.0
6.8	A	PCT6.8 / 10A _	0.7	6	4.0
6.8	B	PCT6.8 / 10B _	0.7	6	3.0
10.0	A	PCT10 / 10A _	1.0	6	3.0
10.0	B	PCT10 / 10B _	1.0	6	2.5
15.0	A	PCT15 / 10A _	1.5	6	3.2
15.0	B	PCT15 / 10B _	1.5	6	2.8
22.0	A	PCT22 / 10A _	2.2	8	3.0
22.0	B	PCT22 / 10B _	2.2	6	2.4
22.0	C	PCT22 / 10C _	2.2	6	1.8
33.0	A	PCT33 / 10A _	3.3	8	1.7
33.0	B	PCT33 / 10B _	3.3	6	1.8
33.0	C	PCT33 / 10C _	3.3	6	1.6
47.0	B	PCT47 / 10B _	4.7	8	1.0
47.0	C	PCT47 / 10C _	4.7	6	1.2
47.0	D	PCT47 / 10D _	4.7	6	0.9
68.0	B	PCT68 / 10B _	6.8	6	1.4
68.0	C	PCT68 / 10C _	6.8	6	1.3
68.0	D	PCT68 / 10D _	6.8	6	0.9
100.0	B	PCT100 / 10B _	10.0	8	1.4
100.0	C	PCT100 / 10C _	10.0	8	1.2
100.0	D	PCT100 / 10D _	10.0	6	0.9
150.0	C	PCT150 / 10C _	15.0	8	0.9
150.0	D	PCT150 / 10D _	15.0	6	0.9
150.0	H	PCT150 / 10H _	15.0	8	0.9
220.0	C	PCT220 / 10C _	22.0	8	0.5
220.0	D	PCT220 / 10D _	22.0	8	0.5
220.0	H	PCT220 / 10H _	22.0	8	0.5
330.0	D	PCT330 / 10D _	33.0	8	0.9
330.0	H	PCT330 / 10H _	33.0	8	0.9
470.0	H	PCT470 / 10H _	47.0	10	0.5

6.3 V DC @ 85°C

10.0	A	PCT10 / 6A _	0.6	6	4.0
15.0	A	PCT15 / 6A _	0.9	6	3.5
15.0	B	PCT15 / 6B _	1.0	6	2.5
22.0	A	PCT22 / 6A _	1.4	6	3.0
22.0	B	PCT22 / 6B _	1.4	6	2.5
33.0	A	PCT33 / 6A _	2.1	8	2.5
33.0	B	PCT33 / 6B _	2.1	6	2.2
33.0	C	PCT33 / 6C _	2.1	6	1.8
47.0	A	PCT47 / 6A _	2.8	10	1.6
47.0	B	PCT47 / 6B _	3.0	6	2.0
47.0	C	PCT47 / 6C _	3.0	6	1.6
68.0	B	PCT68 / 6B _	4.0	8	0.9
68.0	C	PCT68 / 6C _	4.3	6	1.5
68.0	D	PCT68 / 6D _	4.3	6	0.9
100.0	B	PCT100 / 6B _	6.3	10	1.7
100.0	C	PCT100 / 6C _	6.3	6	0.9
100.0	D	PCT100 / 6D _	6.3	6	0.9
150.0	B	PCT150 / 6B _	9.5	10	1.2
150.0	C	PCT150 / 6C _	9.5	6	1.3
150.0	D	PCT150 / 6D _	9.5	6	0.9
220.0	C	PCT220 / 6C _	13.9	8	1.2
220.0	D	PCT220 / 6D _	13.9	8	0.9
220.0	H	PCT220 / 6H _	13.9	8	0.9
330.0	C	PCT330 / 6C _	19.8	12	0.5
330.0	D	PCT330 / 6D _	20.8	8	0.4
330.0	H	PCT330 / 6H _	20.8	8	0.4
470.0	D	PCT470 / 6D _	28.0	12	0.4
470.0	H	PCT470 / 6H _	28.0	10	0.4
680.0	H	PCT680 / 6H _	42.8	10	0.5
1000.0	Z	PCT1000 / 6Z _	63.0	16	0.4

16 V DC @ 85°C

1.0	A	PCT1 / 16A _	0.5	4	11.0
1.5	A	PCT1.5 / 16A _	0.5	6	8.0
2.2	A	PCT2.2 / 16A _	0.5	6	6.5
3.3	A	PCT3.3 / 16A _	0.5	6	5.0
3.3	B	PCT3.3 / 16B _	0.5	6	4.5
4.7	A	PCT4.7 / 16A _	0.8	6	4.0
4.7	B	PCT4.7 / 16B _	0.8	6	3.5
6.8	A	PCT6.8 / 16A _	1.1	6	3.5
6.8	B	PCT6.8 / 16B _	1.1	6	2.5
6.8	C	PCT6.8 / 16C _	1.1	6	2.5
10.0	A	PCT10 / 16A _	1.6	8	3.0
10.0	B	PCT10 / 16B _	1.6	6	2.8
10.0	C	PCT10 / 16C _	1.6	8	2.0
15.0	A	PCT15 / 16A _	2.4	6	2.0
15.0	B	PCT15 / 16B _	2.4	6	2.5
15.0	C	PCT15 / 16C _	2.4	6	1.8
22.0	B	PCT22 / 16B _	3.5	6	2.3
22.0	C	PCT22 / 16C _	3.5	6	1.6
22.0	D	PCT22 / 16D _	3.5	6	1.1
33.0	B	PCT33 / 16B _	5.3	8	2.1
33.0	C	PCT33 / 16C _	5.3	6	1.5
33.0	D	PCT33 / 16D _	5.3	6	0.9
47.0	C	PCT47 / 16C _	7.5	6	1.4
47.0	D	PCT47 / 16D _	7.5	6	0.9
68.0	C	PCT68 / 16C _	10.9	6	1.3
68.0	D	PCT68 / 16D _	10.9	6	0.9
100.0	C	PCT100 / 16C _	16.0	8	1.0
100.0	D	PCT100 / 16D _	16.0	6	0.9
100.0	H	PCT100 / 16H _	16.0	6	0.9
150.0	D	PCT150 / 16D _	24.0	6	0.9
150.0	H	PCT150 / 16H _	24.0	6	0.3
220.0	H	PCT220 / 16H _	35.2	10	0.5

_ Insert tolerance M ($\pm 20\%$) or K ($\pm 10\%$) to complete the Nemco part number

NEMCO reserves the right to supply a higher voltage rating, tighter tolerance and / or lower ESR in the same case size, to the same reliability standards.

Capacitance (μ F)	Case Size	Nemco Part No.	DCL (μ A) max.	$\tan \delta$ max. (%)	ESR @ 100kHz max. (Ω)
---------------------------	--------------	----------------	------------------------	------------------------------	--------------------------------------

20 V DC @ 85°C

1.0	A	PCT1 / 20A _	0.5	4	9.0
1.5	A	PCT1.5 / 20A _	0.5	6	6.5
2.2	A	PCT2.2 / 20A _	0.5	6	5.3
2.2	B	PCT2.2 / 20B _	0.5	6	3.5
3.3	A	PCT3.3 / 20A _	0.7	6	4.5
3.3	B	PCT3.3 / 20B _	0.7	6	3.0
4.7	A	PCT4.7 / 20A _	0.9	6	4.0
4.7	B	PCT4.7 / 20B _	0.9	6	3.0
6.8	A	PCT6.8 / 20A _	1.4	6	2.5
6.8	B	PCT6.8 / 20B _	1.4	6	2.5
6.8	C	PCT6.8 / 20C _	1.4	6	2.0
10.0	B	PCT10 / 20B _	2.0	6	2.1
10.0	C	PCT10 / 20C _	2.0	6	1.9
15.0	B	PCT15 / 20B _	3.0	6	2.0
15.0	C	PCT15 / 20C _	3.0	6	1.7
22.0	B	PCT22 / 20B _	4.4	6	1.8
22.0	C	PCT22 / 20C _	4.4	6	1.6
22.0	D	PCT22 / 20D _	4.4	6	0.9
33.0	C	PCT33 / 20C _	6.6	6	1.5
33.0	D	PCT33 / 20D _	6.6	6	0.9
47.0	C	PCT47 / 20C _	9.4	6	0.9
47.0	D	PCT47 / 20D _	9.4	6	0.9
47.0	H	PCT47 / 20H _	9.4	6	0.9
68.0	D	PCT68 / 20D _	13.6	6	0.9
68.0	H	PCT68 / 20H _	13.6	6	0.9
100.0	D	PCT100 / 20D _	20.0	8	0.9
100.0	H	PCT100 / 20H _	20.0	8	0.9
150.0	H	PCT150 / 20H _	30.0	8	0.3

Capacitance (μ F)	Case Size	Nemco Part No.	DCL (μ A) max.	$\tan \delta$ max. (%)	ESR @ 100kHz max. (Ω)
---------------------------	--------------	----------------	------------------------	------------------------------	--------------------------------------

35 V DC @ 85°C

0.1	A	PCT.1 / 35A _	0.5	4	24.0
0.15	A	PCT.15 / 35A _	0.5	4	21.0
0.22	A	PCT.22 / 35A _	0.5	4	18.0
0.33	A	PCT.33 / 35A _	0.5	4	15.0
0.47	A	PCT.47 / 35A _	0.5	4	12.0
0.47	B	PCT.47 / 35B _	0.5	4	10.0
0.68	A	PCT.68 / 35A _	0.5	4	8.0
0.68	B	PCT.68 / 35B _	0.5	4	8.0
1.0	A	PCT1 / 35A _	0.5	4	7.5
1.0	B	PCT1 / 35B _	0.5	4	6.5
1.5	A	PCT1.5 / 35A _	0.5	6	7.5
1.5	B	PCT1.5 / 35B _	0.5	6	5.2
1.5	C	PCT1.5 / 35C _	0.5	6	4.5
2.2	A	PCT2.2 / 35A _	0.8	6	4.5
2.2	B	PCT2.2 / 35B _	0.8	6	4.2
2.2	C	PCT2.2 / 35C _	0.8	6	3.5
3.3	B	PCT3.3 / 35B _	1.2	6	3.5
3.3	C	PCT3.3 / 35C _	1.2	6	2.5
3.3	D	PCT3.3 / 35D _	1.2	6	2.5
4.7	B	PCT4.7 / 35B _	1.2	6	3.1
4.7	C	PCT4.7 / 35C _	1.6	6	2.2
4.7	D	PCT4.7 / 35D _	1.6	6	1.5
6.8	C	PCT6.8 / 35C _	2.4	6	1.8
6.8	D	PCT6.8 / 35D _	2.4	6	1.3
10.0	C	PCT10 / 35C _	3.5	6	1.6
10.0	D	PCT10 / 35D _	3.5	6	1.0
10.0	H	PCT10 / 35H _	3.5	6	0.9
15.0	C	PCT15 / 35C _	5.3	6	1.4
15.0	D	PCT15 / 35D _	5.3	6	0.9
22.0	D	PCT22 / 35D _	7.7	6	0.9
22.0	H	PCT22 / 35H _	7.7	6	0.9
33.0	D	PCT33 / 35D _	11.6	6	0.9
33.0	H	PCT33 / 35H _	11.6	6	0.9
47.0	H	PCT47 / 35H _	16.5	6	0.9
68.0	Z	PCT68 / 35Z _	23.8	6	0.5

25 V DC @ 85°C

1.0	A	PCT1 / 25A _	0.5	4	8.0
1.5	A	PCT1.5 / 25A _	0.5	6	7.5
1.5	B	PCT1.5 / 25B _	0.5	6	5.0
2.2	A	PCT2.2 / 25A _	0.6	6	7.0
2.2	B	PCT2.2 / 25B _	0.6	6	4.5
3.3	A	PCT3.3 / 25A _	0.8	6	3.7
3.3	B	PCT3.3 / 25B _	0.8	6	3.5
3.3	C	PCT3.3 / 25C _	0.8	6	2.8
4.7	A	PCT4.7 / 25A _	1.2	6	3.1
4.7	B	PCT4.7 / 25B _	1.2	6	2.8
4.7	C	PCT4.7 / 25C _	1.2	6	2.4
6.8	B	PCT6.8 / 25B _	1.7	6	2.8
6.8	C	PCT6.8 / 25C _	1.7	6	2.0
10.0	B	PCT10 / 25B _	2.5	6	2.0
10.0	C	PCT10 / 25C _	2.5	6	1.8
10.0	D	PCT10 / 25D _	2.5	6	1.2
15.0	C	PCT15 / 25C _	3.8	6	1.6
15.0	D	PCT15 / 25D _	3.8	6	1.0
22.0	C	PCT22 / 25C _	5.5	6	1.4
22.0	D	PCT22 / 25D _	5.5	6	0.9
33.0	D	PCT33 / 25D _	8.3	6	0.9
33.0	H	PCT33 / 25H _	8.3	6	0.9
47.0	D	PCT47 / 25D _	11.8	6	0.9
47.0	H	PCT47 / 25H _	11.8	6	0.9
68.0	H	PCT68 / 25H _	17.0	6	0.9
100.0	Z	PCT100 / 25Z _	25.0	8	0.4

50 V DC @ 85°C

0.1	A	PCT.1 / 50A _	0.5	4	22.0
0.15	A	PCT.15 / 50A _	0.5	4	15.0
0.15	B	PCT.15 / 50B _	0.5	4	17.0
0.22	A	PCT.22 / 50A _	0.5	4	18.0
0.22	B	PCT.22 / 50B _	0.5	4	14.0
0.33	B	PCT.33 / 50B _	0.5	4	12.0
0.47	A	PCT.47 / 50A _	0.5	4	9.5
0.47	B	PCT.47 / 50B _	0.7	4	9.5
0.47	C	PCT.47 / 50C _	0.5	4	8.0
0.68	A	PCT.68 / 50A _	0.5	4	7.9
0.68	B	PCT.68 / 50B _	0.5	4	8.0
0.68	C	PCT.68 / 50C _	0.5	4	7.0
1.0	A	PCT1 / 50A _	0.5	4	6.6
1.0	B	PCT1 / 50B _	0.5	4	7.0
1.0	C	PCT1 / 50C _	0.5	4	5.5
1.5	C	PCT1.5 / 50C _	0.8	6	4.5
1.5	D	PCT1.5 / 50D _	0.8	6	4.0
2.2	C	PCT2.2 / 50C _	1.1	6	3.0
2.2	D	PCT2.2 / 50D _	1.1	6	2.5
3.3	C	PCT3.3 / 50C _	1.7	6	2.5
3.3	D	PCT3.3 / 50D _	1.7	6	2.0
4.7	C	PCT4.7 / 50C _	0.5	4	1.4
4.7	D	PCT4.7 / 50D _	2.4	6	1.4
6.8	C	PCT6.8 / 50C _	3.4	6	1.0
6.8	D	PCT6.8 / 50D _	3.4	6	1.0
10.0	D	PCT10 / 50D _	5.0	6	0.8
10.0	H	PCT10 / 50H _	5.0	6	1.0
15.0	D	PCT15 / 50D _	7.5	4	0.6
15.0	H	PCT15 / 50H _	7.5	6	0.6
22.0	Z	PCT22 / 50Z _	11.0	8	0.6

_ Insert tolerance M ($\pm 20\%$) or K ($\pm 10\%$) to complete the Nemco part number

NEMCO reserves the right to supply a higher voltage rating, tighter tolerance and / or lower ESR in the same case size, to the same reliability standards.