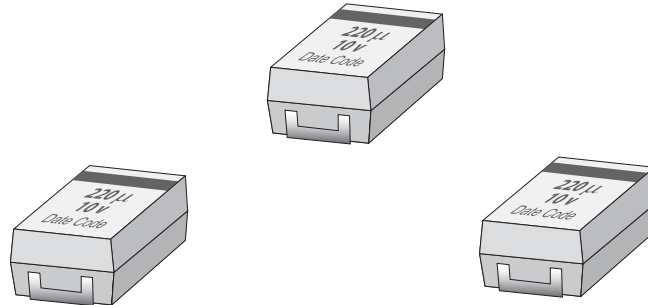


Standard and Extended Range



FEATURES

- **Lead-free, RoHS compliant** Designator (LF) at the end of the part number
- 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 (µF)	Case Size	Arco Part No.	DCL (µA) max.	tan δ max. (%)	ESR @ 100kHz max. (Ω)	Capacitance (µF)	Case Size	Arco Part No.	DCL (µA) max.	tan δ max. (%)	ESR @ 100kHz max. (Ω)
------------------	-----------	---------------	---------------	----------------	-----------------------	------------------	-----------	---------------	---------------	----------------	-----------------------

4 V DC @ 85°C

Capacitance (µF)	Case Size	Arco Part No.	DCL (µA) max.	tan δ max. (%)	ESR @ 100kHz max. (Ω)
33.0	A	ACT04A336MTR	1.3	6	3.0
47.0	A		1.9	8	2.6
68.0	A		2.7	10	1.5
68.0	B		2.7	8	1.8
100.0	A		4.0	30	1.4
100.0	B		4.0	8	0.9
150.0	B		6.0	8	1.5
150.0	C		6.0	6	0.3
220.0	B		8.8	12	1.1
220.0	C		8.8	8	1.2
220.0	D		8.8	8	0.9
330.0	C		13.2	8	0.9
330.0	D		13.2	8	0.9
470.0	C		18.8	14	0.3
470.0	D		18.8	12	0.9
470.0	H		18.8	10	0.5
680.0	D		27.2	14	0.5
680.0	H		27.2	14	0.9
1000.0	D		40.0	60	0.2
1000.0	H		40.0	14	0.4
1500.0	H	60.0	30	0.2	

10 V DC @ 85°C

Capacitance (µF)	Case Size	Arco Part No.	DCL (µA) max.	tan δ max. (%)	ESR @ 100kHz max. (Ω)
2.2	A	ACT10A225MTR	0.5	6	7.0
4.7	A		0.5	6	5.0
6.8	A		0.7	6	4.0
6.8	B		0.7	6	3.0
10.0	A		1.0	6	3.0
10.0	B		1.0	6	2.5
15.0	A		1.5	6	3.2
15.0	B		1.5	6	2.8
22.0	A		2.2	8	3.0
22.0	B		2.2	6	2.4
22.0	C		2.2	6	1.8
33.0	A		3.3	8	1.7
33.0	B		3.3	6	1.8
33.0	C		3.3	6	1.6
47.0	B		4.7	8	1.0
47.0	C		4.7	6	1.2
47.0	D		4.7	6	0.9
68.0	B		6.8	6	1.4
68.0	C		6.8	6	1.3
68.0	D		6.8	6	0.9
100.0	B	10.0	8	1.4	
100.0	C	10.0	8	1.2	
100.0	D	10.0	6	0.9	
150.0	C	15.0	8	0.9	
150.0	D	15.0	6	0.9	
150.0	H	15.0	8	0.9	
220.0	C	22.0	8	0.5	
220.0	D	22.0	8	0.5	
220.0	H	22.0	8	0.5	
330.0	D	33.0	8	0.9	
330.0	H	33.0	8	0.9	
470.0	H	47.0	10	0.5	

6.3 V DC @ 85°C

Capacitance (µF)	Case Size	Arco Part No.	DCL (µA) max.	tan δ max. (%)	ESR @ 100kHz max. (Ω)
10.0	A	ACT6.3A106MTR	0.6	6	4.0
15.0	A		0.9	6	3.5
15.0	B		1.0	6	2.5
22.0	A		1.4	6	3.0
22.0	B		1.4	6	2.5
33.0	A		2.1	8	2.5
33.0	B		2.1	6	2.2
33.0	C		2.1	6	1.8
47.0	A		2.8	10	1.6
47.0	B		3.0	6	2.0
47.0	C		3.0	6	1.6
68.0	B		4.0	8	0.9
68.0	C		4.3	6	1.5
68.0	D		4.3	6	0.9
100.0	B		6.3	10	1.7
100.0	C		6.3	6	0.9
100.0	D		6.3	6	0.9
150.0	B		9.5	10	1.2
150.0	C		9.5	6	1.3
150.0	D		9.5	6	0.9
220.0	C	13.9	8	1.2	
220.0	D	13.9	8	0.9	
220.0	H	13.9	8	0.9	
330.0	C	19.8	12	0.5	
330.0	D	20.8	8	0.4	
330.0	H	20.8	8	0.4	
470.0	D	28.0	12	0.4	
470.0	H	28.0	10	0.4	
680.0	H	42.8	10	0.5	
1000.0	Z	63.0	16	0.4	

16 V DC @ 85°C

Capacitance (µF)	Case Size	Arco Part No.	DCL (µA) max.	tan δ max. (%)	ESR @ 100kHz max. (Ω)
1.0	A	ACT16A105MTR	0.5	4	11.0
1.5	A		0.5	6	8.0
2.2	A		0.5	6	6.5
3.3	A		0.5	6	5.0
3.3	B		0.5	6	4.5
4.7	A		0.8	6	4.0
4.7	B		0.8	6	3.5
6.8	A		1.1	6	3.5
6.8	B		1.1	6	2.5
6.8	C		1.1	6	2.5
10.0	A		1.6	8	3.0
10.0	B		1.6	6	2.8
10.0	C		1.6	8	2.0
15.0	A		2.4	6	2.0
15.0	B		2.4	6	2.5
15.0	C		2.4	6	1.8
22.0	B		3.5	6	2.3
22.0	C		3.5	6	1.6
22.0	D		3.5	6	1.1
33.0	B		5.3	8	2.1
33.0	C	5.3	6	1.5	
33.0	D	5.3	6	0.9	
47.0	C	7.5	6	1.4	
47.0	D	7.5	6	0.9	
68.0	C	10.9	6	1.3	
68.0	D	10.9	6	0.9	
100.0	C	16.0	8	1.0	
100.0	D	16.0	6	0.9	
100.0	H	16.0	6	0.9	
150.0	D	24.0	6	0.9	
150.0	H	24.0	6	0.3	
220.0	H	35.2	10	0.5	

_ Insert tolerance M (±20%) or K(±10%) to complete the Arco part number

ARCO 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.

ACT Standard and Extended Range Surface Mount Tantalum Capacitors

Arco

Capacitance (μF)	Case Size	Arco Part No.	DCL (μA) max	tan δ max. (%)	ESR @ 100kHz max. (Ω)
------------------	-----------	---------------	--------------	----------------	-----------------------

Capacitance (μF)	Case Size	Arco Part No.	DCL (μA) max	tan δ max. (%)	ESR @ 100kHz max. (Ω)
------------------	-----------	---------------	--------------	----------------	-----------------------

20 V DC @ 85°C

Capacitance (μF)	Case Size	Arco Part No.	DCL (μA) max	tan δ max. (%)	ESR @ 100kHz max. (Ω)
1.0	A	ACT20A105MTR	0.5	4	9.0
1.5	A		0.5	6	6.5
2.2	A		0.5	6	5.3
2.2	B		0.5	6	3.5
3.3	A		0.7	6	4.5
3.3	B		0.7	6	3.0
4.7	A		0.9	6	4.0
4.7	B		0.9	6	3.0
6.8	A		1.4	6	2.5
6.8	B		1.4	6	2.5
6.8	C		1.4	6	2.0
10.0	B		2.0	6	2.1
10.0	C		2.0	6	1.9
15.0	B		3.0	6	2.0
15.0	C		3.0	6	1.7
22.0	B		4.4	6	1.8
22.0	C		4.4	6	1.6
22.0	D		4.4	6	0.9
33.0	C		6.6	6	1.5
33.0	D		6.6	6	0.9
47.0	C		9.4	6	0.9
47.0	D		9.4	6	0.9
47.0	H		9.4	6	0.9
68.0	D		13.6	6	0.9
68.0	H		13.6	6	0.9
100.0	D		20.0	8	0.9
100.0	H		20.0	8	0.9
150.0	H		30.0	8	0.3

35 V DC @ 85°C

Capacitance (μF)	Case Size	Arco Part No.	DCL (μA) max	tan δ max. (%)	ESR @ 100kHz max. (Ω)
0.1	A	ACT35A104MTR	0.5	4	24.0
0.15	A		0.5	4	21.0
0.22	A		0.5	4	18.0
0.33	A		0.5	4	15.0
0.47	A		0.5	4	12.0
0.47	B		0.5	4	10.0
0.68	A		0.5	4	8.0
0.68	B		0.5	4	8.0
1.0	A		0.5	4	7.5
1.0	B		0.5	4	6.5
1.5	A		0.5	6	7.5
1.5	B		0.5	6	5.2
1.5	C		0.5	6	4.5
2.2	A		0.8	6	4.5
2.2	B		0.8	6	4.2
2.2	C		0.8	6	3.5
3.3	B		1.2	6	3.5
3.3	C		1.2	6	2.5
3.3	D		1.2	6	2.5
4.7	B		1.2	6	3.1
4.7	C		1.6	6	2.2
4.7	D		1.6	6	1.5
6.8	C		2.4	6	1.8
6.8	D		2.4	6	1.3
10.0	C		3.5	6	1.6
10.0	D		3.5	6	1.0
10.0	H		3.5	6	0.9
15.0	C		5.3	6	1.4
15.0	D		5.3	6	0.9
22.0	D		7.7	6	0.9
22.0	H		7.7	6	0.9
33.0	D		11.6	6	0.9
33.0	H		11.6	6	0.9
47.0	H		16.5	6	0.9
68.0	Z		23.8	6	0.5

25 V DC @ 85°C

Capacitance (μF)	Case Size	Arco Part No.	DCL (μA) max	tan δ max. (%)	ESR @ 100kHz max. (Ω)
1.0	A	ACT25A105MTR	0.5	4	8.0
1.5	A		0.5	6	7.5
1.5	B		0.5	6	5.0
2.2	A		0.6	6	7.0
2.2	B		0.6	6	4.5
3.3	A		0.8	6	3.7
3.3	B		0.8	6	3.5
3.3	C		0.8	6	2.8
4.7	A		1.2	6	3.1
4.7	B		1.2	6	2.8
4.7	C		1.2	6	2.4
6.8	B		1.7	6	2.8
6.8	C		1.7	6	2.0
10.0	B		2.5	6	2.0
10.0	C		2.5	6	1.8
10.0	D		2.5	6	1.2
15.0	C		3.8	6	1.6
15.0	D		3.8	6	1.0
22.0	C		5.5	6	1.4
22.0	D		5.5	6	0.9
33.0	D		8.3	6	0.9
33.0	H		8.3	6	0.9
47.0	D		11.8	6	0.9
47.0	H		11.8	6	0.9
68.0	H		17.0	6	0.9
100.0	Z		25.0	8	0.4

50 V DC @ 85°C

Capacitance (μF)	Case Size	Arco Part No.	DCL (μA) max	tan δ max. (%)	ESR @ 100kHz max. (Ω)
0.1	A	ACT50A104MTR	0.5	4	22.0
0.15	A		0.5	4	15.0
0.15	B		0.5	4	17.0
0.22	A		0.5	4	18.0
0.22	B		0.5	4	14.0
0.33	B		0.5	4	12.0
0.47	A		0.5	4	9.5
0.47	B		0.7	4	9.5
0.47	C		0.5	4	8.0
0.68	A		0.5	4	7.9
0.68	B		0.5	4	8.0
0.68	C		0.5	4	7.0
1.0	A		0.5	4	6.6
1.0	B		0.5	4	7.0
1.0	C		0.5	4	5.5
1.5	C		0.8	6	4.5
1.5	D		0.8	6	4.0
2.2	C		1.1	6	3.0
2.2	D		1.1	6	2.5
3.3	C		1.7	6	2.5
3.3	D		1.7	6	2.0
4.7	C		0.5	4	1.4
4.7	D		2.4	6	1.4
6.8	C		3.4	6	1.0
6.8	D		3.4	6	1.0
10.0	D		5.0	6	0.8
10.0	H		5.0	6	1.0
15.0	D		7.5	4	0.6
15.0	H		7.5	6	0.6
22.0	Z		11.0	8	0.6

_ Insert tolerance M (±20%) or K(±10%) to complete the Arco part number

ARCO 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.