

CAFAB

for defense



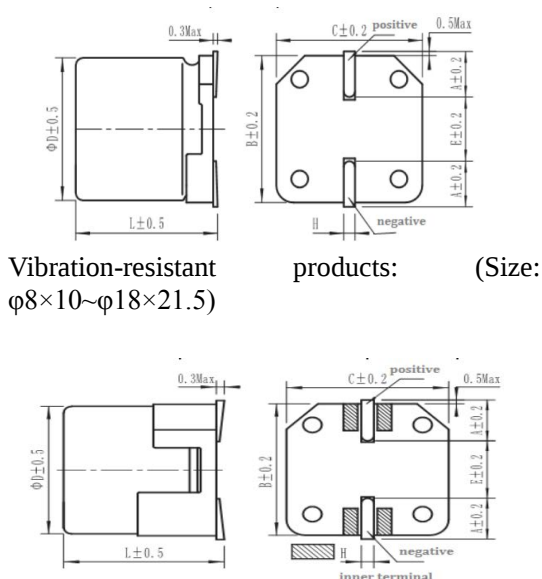
- Wide operating temperature range, 105 °C/2000h life
- Suitable for reflow soldering and high-density installations of small, low-profile equipment.
- Military products meet environmental requirements such as vibration and low air pressure
- Military products can be supplied according to the "seven specialized" level, and can also be supplied according to the "general army" level
- It is suitable for filtering and coupling in electronic circuits in aerospace, aviation, cold, high altitude and ocean
- Main technical parameters:

item	characteristic										
Operating temperature range	-55℃~+105℃										
Rated operating voltage range	4V~100V										
Nominal capacitance range	0.1μF~10000μF										
Allowable deviation of nominal capacitance	M (±20%)										
DC leakage current ^{*1} (25℃, 5min)	I≤0.01C _R U _R or 3 μ A (whichever is greater) C _R : Nominal capacitance (μF) ; U _R : Rated voltage (V)										
DF tgδ	For details, please refer to the "List of Product Specifications and Technical Parameters" (25℃, 120Hz)										
Temperature Characteristics (Impedance Ratio, 120KHz)	U _R (V)	4	6.3	10	16	25	35	50	63	80	100
	Z _{-25℃} /Z _{+25℃}	≤7	≤4	≤3	≤2	≤2	≤2	≤2	≤3	≤3	≤3
	Z _{-55℃} /Z _{+25℃}	≤15	≤8	≤8	≤4	≤4	≤3	≤3	≤4	≤4	≤4
durability	The rated voltage is applied at 105℃ for 2000h, and after recovery for 24h, the electrical performance of the rated voltage (25℃±5℃) is tested at room temperature (25℃±5℃).										
	Rate of change in capacitance				≤± 20% of initial measured value (≤4V: within 25% of ± initial measured value)						
	DC leakage current				≤ 200% of the initial measurement						
	The DF				≤ initial prescriptive value						
Store at high temperatures	It was stored at 105℃ for 1000h, recovered for 24h, and tested at room temperature (25℃±5℃), and its electrical performance met the durability requirements.										

Execution standard number: Q/MN10002—2003

■ Outline drawing and size table (mm)

Standard product: (Size: φ4×5.4~φ18×21.5)



D×L	D	L	A	B	C	E	H
4×5.4	4	5.4021	1.8	4.3	4.3	1.0	0.5~0.8
5×5.4	5	5.402 ¹	2.1	5.3	5.3	1.3	0.5~0.8
6.3×5.4	6.3	5.4±0.3	2.4	6.6	6.6	2.2	0.5~0.8
6.3×7.7	6.3	7.7±0.3	2.4	6.6	6.6	2.2	0.5~0.8
6.3×9.7	6.3	9.7±0.3	2.4	6.6	6.6	2.2	0.5~0.8
8×10	8	10±1.0	2.9	8.3	8.3	3.1	0.8~1.1
8×11.7	8	11.7±1.0	2.9	8.3	8.3	3.1	0.8~1.1
10×10	10	10±1.0	3.2	10.3	10.3	4.5	0.8~1.1
10×10.5	10	10.5±1.0	3.2	10.3	10.3	4.5	0.8~1.1
10×12.3	10	12.3±1.0	3.2	10.3	10.3	4.5	0.8~1.1
10×16	10	16±1.0	3.2	10.3	10.3	4.5	0.8~1.1
12.5×13.5	12.5	13.5±1.0	4.7	12.8	12.8	4.5	0.8~1.2
12.5×16	12.5	16±1.0	4.7	12.8	12.8	4.5	0.8~1.2
16×16.5	16	16.5±1.0	5.7	17.0	17.0	6.5	1.0~1.3
16×21.5	16	21.5±1.0	5.7	17.0	17.0	6.5	1.0~1.3
18×16.5	18	16.5±1.0	6.7	19.0	19.0	6.5	1.0~1.3
18×21.5	18	21.5±1.0	6.7	19.0	19.0	6.5	1.0~1.3

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■ List of product specifications and technical parameters

Rated voltage (V)	Capacitance (μ F)	Dimensions D×L (mm)	tg δ (120Hz)	Ripple current mA.rms (105℃/ 120Hz)	Rated voltage (V)	Capacitance (μ F)	Dimensions D×L (mm)	tg δ (120Hz)	Ripple current mA.ms (105℃/ 120Hz)
4 0G	22	4×5.4	0.4	22	6.3 0J	180	6.3×5.4	0.3	95
	33	5×5.4	0.4	30		220	6.3×5.4	0.3	102
	47	5×5.4	0.4	36		270	6.3×7.7	0.3	103
	56	5×5.4	0.4	37		330	6.3×7.7	0.3	105
	68	5×5.4	0.4	40		390	6.3×7.7	0.3	135
	82	5×5.4	0.4	50		470	6.3×7.7	0.3	210
	100	6.3×5.4	0.4	60		560	8×10	0.3	210
	120	6.3×5.4	0.4	70		680	8×10	0.3	210
	150	6.3×5.4	0.4	86		820	8×10	0.3	220
	180	6.3×5.4	0.4	90		1000	8×10	0.3	230
	220	6.3×5.4	0.4	102		1200	10×10	0.3	260
	330	6.3×7.7	0.4	105		1500	10×10	0.3	310
	390	6.3×7.7	0.4	150		1800	10×12.3	0.3	350
	470	6.3×7.7	0.4	210		2200	10×16	0.3	400
	560	8×10	0.4	210		2200	12.5×13.5	0.3	438
	680	8×10	0.4	210		2700	12.5×13.5	0.3	460
	820	8×10	0.4	220		3300	12.5×13.5	0.3	480
	1000	8×10	0.4	230		3300	12.5×16	0.3	530
	1200	10×10	0.4	270		3900	12.5×16	0.32	570
	1500	10×10	0.4	310		4700	16×16.5	0.32	620
	1800	10×12.3	0.4	350		5600	16×16.5	0.34	680
	2200	10×16	0.4	400		6800	16×21.5	0.34	740
	2200	12.5×13.5	0.4	438		6800	18×16.5	0.34	820
	2700	12.5×13.5	0.4	500		8200	18×21.5	0.34	880
	3300	12.5×16	0.4	530	10 1A	22	5×5.4	0.24	27
	3900	16×16.5	0.42	600		33	5×5.4	0.24	35
	4700	16×16.5	0.42	650		47	5×5.4	0.24	40
	5600	16×21.5	0.44	700		47	6.3×5.4	0.24	46
	6800	18×16.5	0.44	750		56	6.3×5.4	0.24	48
	8200	18×21.5	0.46	800		68	6.3×5.4	0.24	50
	10000	18×21.5	0.46	850		82	6.3×5.4	0.24	55
	22	4×5.4	0.3	22		100	6.3×5.4	0.24	60
	33	5×5.4	0.3	30		120	6.3×5.4	0.24	70
	47	5×5.4	0.3	36		150	6.3×5.4	0.24	86
	56	5×5.4	0.3	39		180	6.3×7.7	0.24	96
	68	5×5.4	0.3	42		220	6.3×7.7	0.24	105
	82	5×5.4	0.3	56		270	6.3×9.7	0.24	140
	100	6.3×5.4	0.3	60		330	8×10	0.24	195
	120	6.3×5.4	0.3	72		390	8×10	0.24	200
	150	6.3×5.4	0.3	86		470	8×10	0.24	210
6.3 0J	22	4×5.4	0.3	22	10 1A	22	5×5.4	0.24	27
	33	5×5.4	0.3	30		33	5×5.4	0.24	35
	47	5×5.4	0.3	36		47	5×5.4	0.24	40
	56	5×5.4	0.3	39		47	6.3×5.4	0.24	46
	68	5×5.4	0.3	42		56	6.3×5.4	0.24	48
	82	5×5.4	0.3	56		68	6.3×5.4	0.24	50
	100	6.3×5.4	0.3	60		82	6.3×5.4	0.24	55
	120	6.3×5.4	0.3	72		100	6.3×5.4	0.24	60
	150	6.3×5.4	0.3	86		120	6.3×5.4	0.24	70

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List of product specifications and technical parameters

Rated voltage (V)	Capacitance (μF)	Dimensions D×L (mm)	tgδ (120Hz)	Ripple current mA.rms (105℃/120Hz)	Rated voltage (V)	Capacitance (μF)	Dimensions D×L (mm)	tgδ (120Hz)	Ripple current mA.ms (105℃/120Hz)
10 1A	560	8×10	0.24	260	16 1C	1000	10×10	0.2	360
	680	10×10	0.24	310		1000	10×12.3	0.2	380
	820	10×10	0.24	310		1000	10×16	0.2	400
	1000	10×10	0.24	310		1000	12.5×13.5	0.2	440
	1000	10×12.3	0.24	330		1200	12.5×13.5	0.2	440
	1200	10×12.3	0.24	360		1500	12.5×13.5	0.2	440
	1500	10×16	0.24	390		1800	12.5×13.5	0.2	440
	1500	12.5×13.5	0.24	440		2200	12.5×16	0.22	530
	1800	12.5×13.5	0.24	470		2700	16×16.5	0.22	640
	2200	12.5×13.5	0.24	500		3300	16×16.5	0.24	680
	2200	12.5×16	0.24	530		3900	16×16.5	0.24	750
	2700	12.5×16	0.26	580		4700	16×21.5	0.26	800
	3300	16×16.5	0.26	600		4700	18×16.5	0.26	830
	3900	16×16.5	0.28	650		5600	18×21.5	0.26	880
	4700	16×16.5	0.28	700	25	4.7	4×5.4	0.16	13
	5600	16×21.5	0.3	730		10	4×5.4	0.16	18
	5600	18×16.5	0.3	800		10	5×5.4	0.16	23
	6800	18×21.5	0.3	850		22	6.3×5.4	0.16	38
16 1C	10	4×5.4	0.2	18		33	6.3×5.4	0.16	48
	22	4×5.4	0.2	26		47	6.3×5.4	0.16	66
	22	5×5.4	0.2	30		47	6.3×7.7	0.16	70
	33	6.3×5.4	0.2	40		56	6.3×7.7	0.16	75
	47	6.3×5.4	0.2	50		68	6.3×7.7	0.16	80
	56	6.3×5.4	0.2	52		82	6.3×7.7	0.16	85
	68	6.3×5.4	0.2	54		100	6.3×7.7	0.16	91
	82	6.3×5.4	0.2	58		120	6.3×7.7	0.16	120
	100	6.3×5.4	0.2	60		150	6.3×7.7	0.16	140
	120	6.3×5.4	0.2	65		180	8×10	0.16	150
	120	6.3×7.7	0.2	90		220	8×10	0.16	155
	150	6.3×7.7	0.2	95		330	8×10	0.16	190
	180	6.3×7.7	0.2	100		330	10×10	0.16	210
	220	6.3×7.7	0.2	105		470.0	10×10.5	0.16	300
	220	6.3×9.7	0.2	110		560.0	10×12.3	0.16	330
	270	6.3×9.7	0.2	120		560	10×16	0.16	420
	270	8×10	0.2	190		680	12.5×13.5	0.16	420
	330	8×10	0.2	195		820	12.5×13.5	0.16	500
	390	8×10	0.2	200		1000	12.5×16	0.16	540
	470	8×10	0.2	230		1000	16×16.5	0.16	640
	560	10×10	0.2	280		1200	16×16.5	0.16	640
	680	10×10	0.2	310		1500	16×16.5	0.16	650
	820	10×10	0.2	360		1800	16×21.5	0.18	700

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List of product specifications and technical parameters

Rated voltage (V)	Capacitance (μF)	Dimensions D×L (mm)	tgδ (120Hz)	Ripple current mA.rms (105℃/120Hz)	Rated voltage (V)	Capacitance (μF)	Dimensions D×L (mm)	tgδ (120Hz)	Ripple current mA.rms (105℃/120Hz)
25 1E	2200	16×21.5	0.18	750	50 1H	2.2	4×5.4	0.14	11
	2200	18×16.5	0.18	780		3.3	4×5.4	0.14	14
	2700	18×21.5	0.18	820		4.7	5×5.4	0.14	19
35 1V	2.2	4×5.4	0.14	7.5		10.0	5×5.4	0.14	22
	3.3	4×5.4	0.14	9		10.0	6.3×5.4	0.14	30
	4.7	4×5.4	0.14	15		22	6.3×5.4	0.14	42
	10	5×5.4	0.14	25		22	6.3×7.7	0.14	51
	22	6.3×5.4	0.14	42		33	6.3×7.7	0.14	60
	33	6.3×5.4	0.14	46		47	6.3×7.7	0.14	63
	33	6.3×7.7	0.14	59		56	8×10	0.14	70
	47	6.3×5.4	0.14	52		68	8×10	0.14	80
	47	6.3×7.7	0.14	63		82	8×10	0.14	120
	56	6.3×7.7	0.14	65		100	8×10	0.14	140
	68	6.3×7.7	0.14	70		120	10×10	0.14	150
	82	6.3×7.7	0.14	80		150	10×10	0.14	180
	100	6.3×7.7	0.14	84		180	10×10	0.14	200
	120	8×10	0.14	130		220	10×10	0.14	220
	150	8×10	0.14	155		220	10×12.3	0.14	260
	180	8×10	0.14	160		330	10×16	0.14	280
	220	8×10	0.14	190		330	12.5×13.5	0.14	310
	330	10×10	0.14	300		330	12.5×16	0.14	360
	470	10×10.5	0.14	340		470	12.5×16	0.14	410
	470	10×12.3	0.14	380		560	16×16.5	0.14	640
	470	10×16	0.14	400		680	16×16.5	0.14	640
	470	12.5×13.5	0.14	415		820	16×21.5	0.14	720
	560	12.5×13.5	0.14	415		820	18×16.5	0.14	750
	680	12.5×16	0.14	500		820	18×21.5	0.14	780
	820	12.5×16	0.14	500		1000	18×21.5	0.14	800
	1000	16×16.5	0.14	530	63 1J	10	6.3×7.7	0.18	39
	1000	16×21.5	0.14	580		22	6.3×7.7	0.18	49
	1200	16×21.5	0.14	620		33	8×10	0.18	112
	1200	18×16.5	0.14	700		47	8×10	0.18	119
	1500	18×16.5	0.14	750		56	8×10	0.18	120
	1500	18×21.5	0.14	800		56	10×10	0.18	124
	2200	18×21.5	0.16	820		68	10×10	0.18	128
50 1H	0.10	4×5.4	0.14	1.0		82	10×10	0.18	132
	0.22	4×5.4	0.14	2.6		100	10×10	0.18	135
	0.33	4×5.4	0.14	3.2		120	10×10	0.18	150
	0.47	4×5.4	0.14	3.8		150	10×10	0.18	196
	1.00	4×5.4	0.14	6.3		180	10×12.3	0.18	210

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Rated voltage (V)	Capacitance (μF)	Dimensions D×L (mm)	tgδ (120Hz)	Ripple current mA.rms (105℃/120Hz)
63 1J	180	10×16	0.18	300
	220	12.5×13.5	0.18	360
	220	12.5×16	0.18	400
	330	12.5×16	0.18	450
	330	16×16.5	0.18	500
	470	16×16.5	0.18	550
	470	16×21.5	0.18	600
	560	16×21.5	0.18	650
	560	18×16.5	0.18	700
	680	18×21.5	0.18	720
	820	18×21.5	0.18	750
80 1K	10	6.3×7.7	0.18	50
	22	6.3×7.7	0.18	60
	33	8×10	0.18	90
	47	8×10	0.18	120
	56	10×10	0.18	150
	68	10×10	0.18	160
	82	10×10	0.18	170
	100	10×12.3	0.18	280
	100	10×16	0.18	300
	100	12.5×13.5	0.18	475
	120	12.5×13.5	0.18	500
	150	12.5×13.5	0.18	600
	180	12.5×16	0.18	640
	220	12.5×16	0.18	650

Rated voltage (V)	Capacitance (μF)	Dimensions D×L (mm)	tgδ (120Hz)	Ripple current mA.rms (105℃/120Hz)
80 1K	330	16×16.5	0.18	680
	470	16×21.5	0.18	700
	470	18×16.5	0.18	720
	560	18×21.5	0.18	740
100 2A	4.7	6.3×7.7	0.18	35
	10	6.3×7.7	0.18	50
	10	8×10	0.18	77
	22	10×10	0.18	126
	33	10×10	0.18	133
	47	10×12.3	0.18	135
	47	10×16	0.18	138
	47	12.5×13.5	0.18	140
	56	12.5×13.5	0.18	220
	68	12.5×13.5	0.18	240
	82	12.5×13.5	0.18	300
	100	12.5×13.5	0.18	405
	100	12.5×16	0.18	440
	120	12.5×16	0.18	480
	150	16×16.5	0.18	500
	180	16×16.5	0.18	530
	220	16×16.5	0.18	560
	220	16×21.5	0.18	600
	220	18×16.5	0.18	630
	330	18×21.5	0.18	680

Ripple current frequency coefficient

Frequency (f)	50Hz	120Hz	300Hz	1kHz
coefficient	0.70	1.00	1.17	1.36

Part number examples

CAFAB | 158 | M | 0J | T | 100100
series | capacitance | tolerance | voltage | package | dimension