

CABAD

for defense



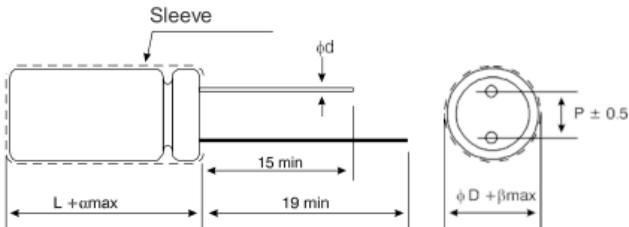
- 125°C series, high heat resistance, leaded type.
- Low ESR, high frequency and low impedance.
- The national military standard level meets the environmental requirements of vibration and low pressure.
- It is suitable for energy storage, filtering and bypass in electronic circuits in aerospace, aviation, cold, high altitude and ocean.
- Main technical indicators

Item	characteristic	
Operating temperature range	-55℃~+125℃	
Rated operating voltage range	10V~100V	
Nominal capacitance range	8.2μF~22000μF	
Allowable deviation of nominal capacitance	M (±20%)	(25℃, 120Hz)
DC leakage current*1	I≤0.01C _R U _R (μA) (25℃, 2min) C _R : Nominal capacitance (μF); U _R : Rated voltage (V)	
Loss tangent tgδ (max)	For details, please refer to the "List of Product Specifications and Technical Parameters" (25℃, 120Hz)	
ESR (maximum)*2	For details, please refer to the "List of Product Specifications and Technical Parameters" (25℃, 100KHz)	
Low temperature characteristics (capacitance rate of change)	(C25℃°-C55℃) /C25℃≤35% (25℃, 120Hz)	
Durability (High Temperature Test)	The rated voltage is applied at 125℃ for 2000h, and after recovery for 24h, the test is at room temperature (25℃±5℃), and its electrical performance conforms to:	
	Rate of change in capacitance	≤± 15% of initial measurements
	DC leakage current	≤ initial prescriptive value
	The loss angle is tangent	≤ initial measurements
	ESR	≤ 200% of the initial measurement
Store at high temperatures	After storage at 125℃ for 1000h, recovery for 24 h, and test at room temperature (25℃±5℃), its electrical performance conforms to:	
	Rate of change in capacitance	≤± 15% of initial measurements
	DC leakage current	≤ initial prescriptive value
	The loss angle is tangent	≤ initial measurements
	ESR	≤ 200% of the initial measurement

Execution standard number: Q/MN21002—2020 GJB10175—2021

Note: *1 1KΩ protection resistor in series during testing and charging; *2 The test location is the root of the capacitor lead terminal.

Outline drawing and size table (mm)



Ø	6.3	8	10	12.5	16	18
F	2.5	3.5	5.0		7.5	
d	0.6				0.8	
A	1.0		2.0			
B	0.5			1.0		

PART NUMBER

CABAD 107 M 1H O 100160
D*L 10*16 package
voltage code
capacitance tolerance
capacitance code
series

Code	Lead Forming Type
O	Bulk
T	5mm Chip tape
A	(Φ4~Φ6.3)2.5mm tape
F	(Φ4~Φ8)5mm tape
P	Φ≥Φ8mm original(vertical)tape
M	5mm Lead forming
C	C Lead forming
B	B Lead forming
D	(Φ4~Φ8)2.5mm Lead forming

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■ List of product specifications and technical parameters

rated voltage V	capacity μF	Dimensions D×L (mm)	tgδ (120Hz)	ESR (mΩ,25℃) (100kHz)	Ripple current mA,rms (100kHz, 125℃)	rated voltage V	capacity μF	Dimensions D×L (mm)	tgδ (120Hz)	ESR (mΩ,25℃) (100kHz)	Ripple current mA,rms (100kHz, 125℃)
10	270	6.3×8	0.12	28	880	16	3900	12.5×25	0.15	15	2000
	330	6.3×11	0.12	25	1040		4700	16×25	0.15	15	2120
	390	6.3×11	0.12	25	1040		5600	16×30	0.16	15	2320
	470	8×8	0.12	25	1040		6800	16×35	0.16	15	2360
	560	8×8	0.12	25	1040		8200	16×35	0.16	15	2360
	680	8×11.5	0.12	20	1200		10000	18×30	0.17	15	2400
	820	8×11.5	0.12	20	1200		12000	18×35	0.18	15	2520
	1000	10×10	0.12	18	1200		15000	18×40	0.18	15	2680
	1200	10×12.5	0.13	18	1360		100	6.3×8	0.12	28	960
	1500	10×12.5	0.13	18	1360		120	6.3×8	0.12	28	960
	1800	10×16	0.13	18	1520	20	150	6.3×11	0.12	25	1120
	2200	10×20	0.13	18	1600		180	6.3×11	0.12	25	1120
	2700	12.5×16	0.13	15	1760		220	8×8	0.12	25	1120
	3300	12.5×20	0.14	15	1920		270	8×11.5	0.12	20	1280
	3900	12.5×20	0.14	15	1920		330	8×11.5	0.12	20	1280
	4700	12.5×25	0.15	15	2000		390	10×10	0.12	18	1280
	5600	12.5×25	0.15	15	2000		470	10×12.5	0.12	18	1440
	6800	16×25	0.16	15	2120		560	10×12.5	0.12	18	1440
	8200	16×25	0.16	15	2120		680	10×16	0.12	18	1600
	10000	16×30	0.17	15	2320		820	10×16	0.12	18	1600
	12000	16×35	0.18	15	2400		1000	12.5×16	0.13	18	1880
	15000	18×30	0.18	15	2400		1200	12.5×16	0.13	18	1880
	18000	18×35	0.18	15	2520		1500	12.5×20	0.13	18	2080
	22000	18×40	0.19	15	2680		1800	12.5×20	0.14	18	2080
16	180	6.3×8	0.12	28	880		2200	12.5×25	0.14	15	2120
	220	6.3×8	0.12	28	880		2700	12.5×25	0.14	15	2120
	270	6.3×11	0.12	25	1040		3300	16×25	0.14	15	2240
	330	8×8	0.12	25	1040		3900	16×30	0.15	15	2320
	390	8×8	0.12	25	1040		4700	16×35	0.15	15	2480
	470	8×11.5	0.12	20	1200		5600	16×35	0.15	15	2480
	560	8×11.5	0.12	20	1200		6800	18×35	0.16	15	2560
	680	10×10	0.12	18	1200		8200	18×40	0.16	15	2640
	820	10×12.5	0.12	18	1360		10000	18×40	0.16	15	2640
	1000	10×12.5	0.12	18	1360	25	100	6.3×8	0.12	28	800
	1200	10×16	0.12	18	1520		120	6.3×11	0.12	25	960
	1500	12.5×16	0.13	15	1760		150	6.3×11	0.12	25	960
	1800	12.5×16	0.13	15	1760		180	8×8	0.12	25	1120
	2200	12.5×20	0.13	15	1920		220	8×11.5	0.12	20	1280
	2700	12.5×20	0.14	15	1920		270	8×11.5	0.12	20	1280
	3300	12.5×25	0.14	15	2000		330	10×10	0.12	18	1280

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■ List of product specifications and technical parameters

rated voltage V	capacity μF	Dimensions D×L (mm)	tgδ (120Hz)	ESR (mΩ, 25℃) (100kHz)	Ripple current mA,rms (100kHz, 125℃)	rated voltage V	capacity μF	Dimensions D×L (mm)	tgδ (120Hz)	ESR (mΩ, 25℃) (100kHz)	Ripple current mA,rms (100kHz, 125℃)
25	390	10×10	0.12	18	1280	40	47	6.3×8	0.12	35	880
	470	10×12.5	0.12	18	1440		56	6.3×11	0.12	32	1040
	560	10×12.5	0.12	18	1440		68	6.3×11	0.12	32	1040
	680	10×16	0.12	18	1600		82	8×8	0.12	32	1040
	820	12.5×16	0.12	16	1880		100	8×11.5	0.12	30	1200
	1000	12.5×16	0.12	16	1880		120	8×11.5	0.12	30	1200
	1200	12.5×20	0.13	16	2080		150	10×10	0.12	28	1200
	1500	12.5×20	0.13	16	2080		180	10×10	0.12	28	1200
	1800	12.5×25	0.14	15	2120		220	10×12.5	0.12	25	1360
	2200	16×25	0.14	15	2240		270	10×16	0.12	22	1520
	2700	16×25	0.14	15	2240		330	10×16	0.12	22	1520
	3300	16×30	0.14	15	2360		390	12.5×16	0.12	20	1760
	3900	16×35	0.14	15	2480		470	12.5×16	0.12	20	1760
	4700	18×30	0.14	15	2560		560	12.5×20	0.12	20	1920
	5600	18×30	0.15	15	2560		680	12.5×20	0.12	20	1920
	6800	18×35	0.15	15	2600		820	12.5×25	0.12	20	2120
	8200	18×40	0.16	15	2640		1000	12.5×25	0.12	20	2120
35	68	6.3×8	0.12	28	880	40	1200	16×25	0.12	17	2400
	82	6.3×11	0.12	25	1040		1500	16×30	0.12	16	2440
	100	8×8	0.12	25	1040		1800	16×35	0.12	16	2480
	120	8×8	0.12	25	1040		2200	16×35	0.12	16	2480
	150	8×11.5	0.12	22	1200		2700	18×35	0.12	16	2640
	180	8×11.5	0.12	22	1200		3300	18×40	0.12	16	2800
	220	10×10	0.12	20	1200	50	27	6.3×8	0.12	35	640
	270	10×12.5	0.12	20	1360		33	6.3×11	0.12	32	800
	330	10×16	0.12	20	1520		39	6.3×11	0.12	32	800
	390	12.5×16	0.12	20	1760		47	8×8	0.12	32	800
	470	12.5×16	0.12	20	1760		56	8×8	0.12	32	800
	560	12.5×20	0.12	17	1920		68	8×11.5	0.12	30	960
	680	12.5×25	0.12	17	2120		82	10×10	0.12	28	960
	820	12.5×25	0.12	17	2120		100	10×10	0.12	28	960
	1000	16×25	0.12	17	2400		120	10×12.5	0.12	25	1120
	1200	16×25	0.13	17	2400		150	10×16	0.12	21	1280
	1500	16×30	0.13	17	2480		180	10×16	0.12	21	1280
	1800	16×35	0.13	17	2480		220	12.5×16	0.12	18	1600
	2200	18×30	0.13	17	2480		270	12.5×16	0.12	18	1600
	2700	18×30	0.13	17	2480		330	12.5×20	0.12	18	1720
	3300	18×35	0.13	17	2640		390	12.5×20	0.12	18	1720
	3900	18×35	0.13	17	2640		470	12.5×25	0.12	17	1800
	4700	18×40	0.13	17	2800		560	12.5×25	0.12	17	1800

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rated voltage V	capacity μF	Dimensions D×L (mm)	tgδ (120Hz)	ESR (mΩ,25℃) (100kHz)	Ripple current mA,rms (100kHz, 125℃)	rated voltage V	capacity μF	Dimensions D×L (mm)	tgδ (120Hz)	ESR (mΩ,25℃) (100kHz)	Ripple current mA,rms (100kHz, 125℃)
50	680	16×25	0.12	16	2040	80	27	8×11.5	0.10	40	840
	820	16×30	0.12	16	2200		33	10×10	0.10	35	840
	1000	16×35	0.12	16	2280		39	10×12.5	0.10	30	1000
	1200	16×35	0.12	16	2280		47	10×12.5	0.10	30	1000
	1500	18×30	0.12	16	2400		56	10×16	0.10	25	1160
	1800	18×35	0.12	16	2520		68	10×20	0.10	24	1320
	2200	18×40	0.12	16	2680		82	12.5×16	0.10	22	1400
63	18	6.3×8	0.10	45	640		100	12.5×20	0.10	20	1480
	22	6.3×11	0.10	40	800		120	12.5×20	0.10	20	1480
	27	8×8	0.10	40	800		150	12.5×25	0.10	18	1800
	33	8×8	0.10	40	800		180	12.5×25	0.10	18	1800
	39	8×11.5	0.10	35	960		220	16×25	0.10	18	2000
	47	8×11.5	0.10	35	960		270	16×30	0.10	18	2160
	56	10×10	0.10	30	960		330	16×35	0.10	18	2320
	68	10×12.5	0.10	25	1120		390	18×30	0.10	17	2320
	82	10×12.5	0.10	25	1120		470	18×35	0.10	17	2360
	100	10×16	0.10	22	1280		560	18×40	0.10	17	2480
	120	10×16	0.10	22	1280		680	18×40	0.10	17	2480
	150	12.5×16	0.10	18	1520	100	27	10×10	0.12	40	480
	180	12.5×16	0.10	18	1520		33	10×12.5	0.12	35	640
	220	12.5×20	0.10	17	1800		39	10×12.5	0.12	35	640
	270	12.5×25	0.10	17	2000		47	10×16	0.12	30	784
	330	12.5×25	0.10	17	2000		56	10×20	0.12	26	1040
	390	16×25	0.10	16	2240		68	12.5×16	0.12	24	1160
	470	16×25	0.10	16	2240		82	12.5×20	0.12	22	1280
	560	16×30	0.10	16	2320		100	12.5×20	0.12	22	1280
	680	16×35	0.10	16	2360		120	12.5×25	0.12	22	1560
	820	18×30	0.10	16	2360		150	12.5×25	0.12	22	1560
	1000	18×35	0.10	16	2400		180	16×25	0.12	20	1760
	1200	18×40	0.10	16	2680		220	16×25	0.12	20	1760
80	8.2	6.3×8	0.10	50	520		270	16×30	0.12	20	1880
	10	6.3×11	0.10	45	680		330	16×35	0.12	20	2040
	12	6.3×11	0.10	45	680		390	18×30	0.12	19	2040
	15	8×8	0.10	45	680		470	18×35	0.12	19	2160
	18	8×11.5	0.10	40	840		560	18×40	0.12	18	2280
	22	8×11.5	0.10	40	840						

Ripple current frequency coefficient

Frequency (f)	1KHz≤f<1KHz	1KHz≤f<10KHz	10KHz≤f<100KHz	100KHz≤f<300KHz
coefficient	0.05	0.3	0.7	1.0