CABAB

for defense

- Conductive polymer solid-state electrolyte is used to achieve **ultra-low ESR.**
- Superior interference absorption. Excellent temperature and frequency characteristics.
- 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℃~+105℃
Rated operating voltage range	40V~80V
Nominal capacitance range	68μF~2200μF
Allowable deviation of nominal capacitance	M（±20%） （25℃，120Hz）
DC leakage current*1	I≤0.01$C_R U_R$ （25℃，2min） C_R: Nominal capacitance (μF); UR: Rated voltage (V)
Loss tangent tg δ (max)	For details, please refer to the "List of Product Specifications and Technical Parameters"（25℃，120Hz）
ESR（max）*2	For details, please refer to the "List of Product Specifications and Technical Parameters"（25℃，100KHz）
Low temperature characteristics (capacitance rate of change)	$C_{25℃}$-$C_{-55℃}$/$C_{25℃}$≤25% （25℃，120Hz）
Durability (High Temperature Test)	The rated voltage is applied at 105° C for 2000h, and after recovery for 24h, the electrical performance is tested at room temperature (25° C±5° C).:
Store at high temperatures	It was stored at 105 ° C for 1000h, recovered for 24 h, and tested at room temperature (25 ° C±5 ° C).:

Durability (High Temperature Test):

Rate of change in capacitance	≤±10%Initial measurements
DC leakage current	≤Initial prescriptive value
The loss angle is tangent	≤Initial measurements
ESR	≤200%Initial measurements

Store at high temperatures:

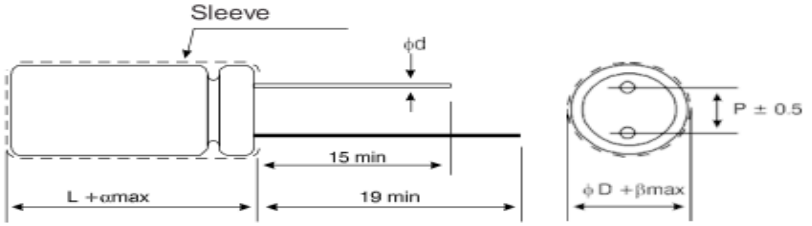
Rate of change in capacitance	≤±10%Initial measurements
DC leakage current	≤Initial prescriptive value
The loss angle is tangent	≤Initial measurements
ESR	≤200%Initial measurements

Executive standard number：ZZR－Q/MN21001－2020 GJB10175－2021 Note:

1） 1KΩ protection resistor in series during testing and charging;

2） The test position is the bottom of the capacitor lead terminal.

■ Outline drawings and size charts（mm）



φ	10	13	16	18
F	5		7.5	
d	0.6		0.8	
α	2.0			
β	1.0			

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List specifications and technical parameters

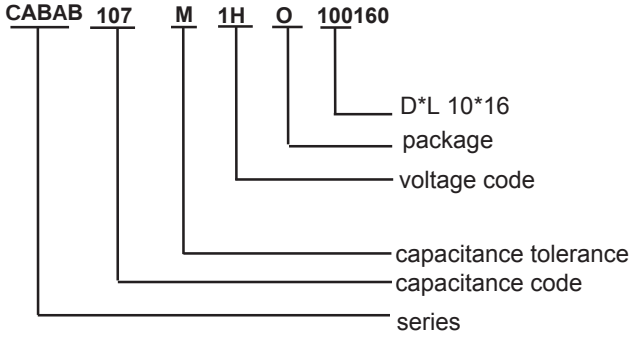
rated voltage V	capacity μ F	Dimension sD×L (mm)	tgδ (120Hz)	ESR (mΩ,25℃) (100kHz)	Ripple current mA,rms (100KH, 105℃)
40 1G	180	10×16	0.08	22	3400
	220	10×20	0.08	22	3800
	330	13×16	0.08	20	4100
	470	13×20	0.08	20	4600
	680	13×25	0.08	20	5000
	1200	16×20	0.08	18	5600
	2200	16×30	0.09	16	5900
50 1H	100	10×16	0.08	21	3200
	120	10×16	0.08	21	3200
	150	10×20	0.08	18	3500
	220	13×16	0.08	18	4000
	330	13×20	0.08	18	4300
	470	13×25	0.08	17	4500
	680	16×25	0.08	16	5100
	820	16×30	0.08	16	5500
	1000	16×35	0.08	16	5700
	1500	18×35	0.08	16	6300
63 1J	68	10×16	0.08	22	3200

rated voltage V	capacity μ F	Dimension sD×L (mm)	tgδ (120Hz)	ESR (mΩ,25℃) (100kHz)	Ripple current mA,rms (100KH, 105℃)
63 1J	100	10×20	0.08	18	3500
	150	13×16	0.08	18	3800
	220	13×20	0.08	17	4500
	330	13×25	0.08	17	5000
	470	16×25	0.08	16	5600
	680	18×25	0.08	16	6000
	820	18×35	0.08	16	6500
	1000	18×40	0.08	16	6700
80 1K	68	10×16	0.09	25	2900
	100	10×20	0.09	24	3300
	150	13×16	0.09	22	3500
	180	10×20	0.09	22	3300
	220	13×20	0.09	20	3700
	330	13×25	0.09	18	4500
	470	16×25	0.09	18	5000
	680	18×25	0.09	17	5600
	820	16×35	0.09	17	5800
	1000	18×40	0.09	16	6000

■ 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

HOW TO MAKE A PART NUMBER



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