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GM Series



- **Large size for PCB board mounting hole type.**

◆ SPECIFICATIONS

Item	Performance Characteristics	
Category Temperature Range	-40 ~ +85℃	-25 ~ +85℃
Working Voltage Range	16 ~ 100Vdc	160 ~ 550Vdc
Capacitance Range	820 ~ 68,000μF	47 ~ 3,300 μF
Capacitance Tolerance	±20% (at 25℃ and 120Hz)	
Dissipation Factor (tanδ) (at 25℃, 120Hz)		

Rated Voltage (V)	16	25	35	50	63	80 ~ 100	160 ~ 250	350 ~ 450	500~550
tanδ(Max)	0.35	0.35	0.25	0.25	0.25	0.20	0.15	0.15	0.20

The above values should be increased by 0.02 for every additional 1000μF

Leakage Current	I=0.02CV or 3000μA,whichever is smaller I : Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V) Impress the rated voltage for 5 minutes

Low Temperature Characteristics Impedance Ratio(MAX)

Rated voltage (V)	16	25	35	50	63	80	100	160 ~ 250	350	400	420 ~ 550
Z(-40℃)/Z(+20℃)	15	10	8	6	6	5	5	—	—	—	—
Z(-25℃)/Z(+20℃)	—	—	—	—	—	—	—	4	4	4	8

(at 120Hz)

Endurance

The following specifications shall be satisfied when the capacitors are restored to 25℃ after subjected to DC voltage with the rated ripple current is applied for 2,000 hours at 85℃.

Capacitance change	≦ ±20% of the initial value
Dissipation factor(tanδ)	≦ 200% of the specified value
Leakage current	≦ specified value

Shelf Life

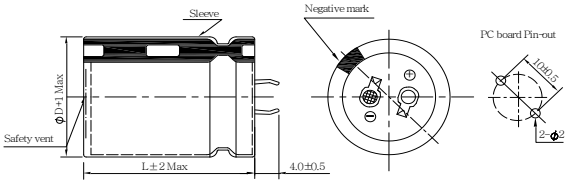
The following requirements shall be satisfied when the capacitor are restored to 25℃ after exposing them for 1,000 hours at 85℃ without voltage applied.

Capacitance change	≦ ±20% of the initial value
Dissipation factor(tanδ)	≦ 200% of the specified value
Leakage current	≦ 200% of the specified value

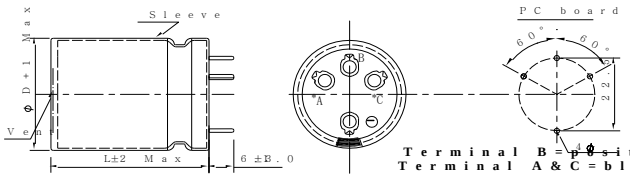
Others	Conforms to JIS-C-5101-4 (1998), characteristic W

◆ DIMENSIONS (mm)

Terminal Code : ND : Standard



Terminal Code :K6 (ø35)



◆ PART NUMBER SYSTEM(Example : 400V 470μF)

G	M	2	G	4	7	1	M	N	D	3	0	5	0						

Special Request
Size code(3050 : 30×50)
Terminal length code
Lead forming Type code
Capacitance tolerance code(M: ±20%)
Capacitance code(470μF)
Voltage code(400V)
Series code (GM)

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Aluminum Electrolytic Capacitor

Customer	Digi-Key	SERIES	GM	NO.:	PUBLISH DATE	2022-03-25

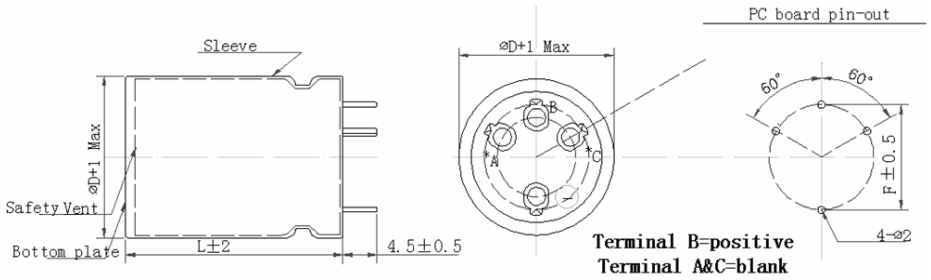


FIG-1

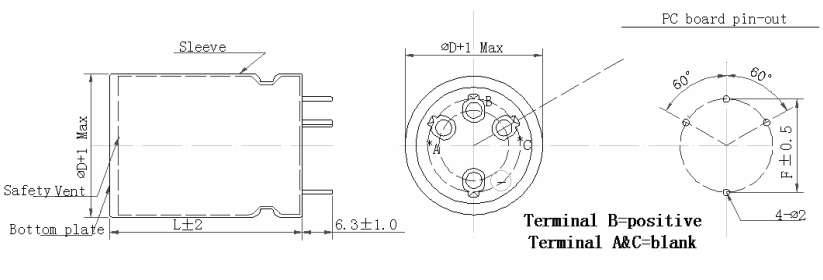


FIG-1

No.	CHINSAN Part No.	Customer Part No.	Capacitance (uF)	Tolerance On rated Capacitance (%)	Working Voltage (Vdc)	Surge Voltage (Vdc)	Category Temp Range (℃)	Tanδ @ 25℃ (120Hz) (Max)	Leakage Current (uA) (2 min.)	Rated Ripple Current (mA rms) @ 85℃ 120Hz	Rated Ripple Current (mA rms) @ 85℃ 100kHz	ESR @25℃ (mΩ max/ 120Hz)	Impedance @20℃ (mΩ max/ 100kHz)	Endurance @ 85℃ (Hours)	Dimensions (mm)					Appearance Drawing No
															D Φ	L	a	d	F	
1	GM2S152MK44570R	/	1500 μF	±20%	420 V	/	-25~+85	/	/	6500	/	/	/	2000	45	70	/	/	22.5	FIG-1
2	GM2W152MK64580	/	1500 μF	±20%	450 V	/	-25~+85	/	/	5600	/	/	/	2000	45	80	/	/	22.5	FIG-2

※Test leakage current before testing dissipation factor and capacitance during the electric characteristic test.

REMARKS:	APPROVED BY	CHECKED BY	PREPARED BY
Sleeve Color: Dark Blue.	张洪斌	曾爱娥	梁慧妍

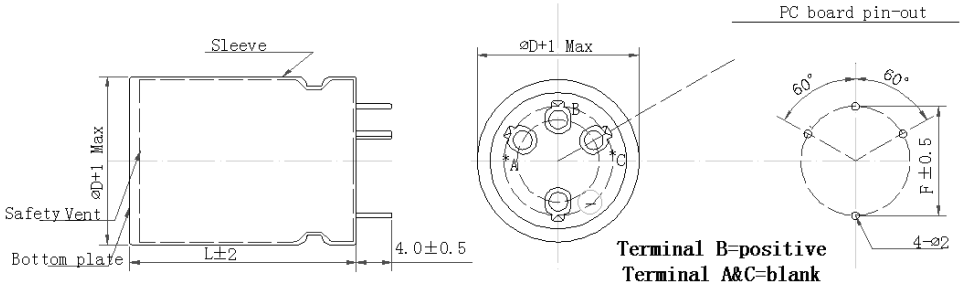
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Aluminum Electrolytic Capacitor

Customer	Digi-Key	SERIES	GM	NO.:	PUBLISH DATE	2022-03-25



No.	CHINSAN Part No.	Customer Part No.	Capacitance (uF)	Tolerance On rated Capacitance (%)	Working Voltage (Vdc)	Surge Voltage (Vdc)	Category Temp Range (℃)	Tanδ @ 25℃ (120Hz) (Max)	Leakage Current (uA) (2 min.)	Rated Ripple Current (mA rms) @ 85℃ 120Hz	Rated Ripple Current (mA rms) @ 85℃ 100kHz	ESR @25℃ (mΩ max/ 120Hz)	Impedance @20℃ (mΩ max/ 100kHz)	Endurance @ 85℃ (Hours)	Dimensions (mm)					Appearance Drawing No
															D Φ	L	a	d	F	
1	GM2G122MKD4570R	/	1200 μF	±20%	400 V	/	-25~+85	/	/	5500	/	/	/	2000	45	70	/	/	22.5	---

※Test leakage current before testing dissipation factor and capacitance during the electric characteristic test.

REMARKS:	APPROVED BY	CHECKED BY	PREPARED BY
Sleeve Color: Dark Blue.	张洪斌	曾爱娥	梁慧妍

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Aluminum Electrolytic Capacitor

Customer	Digi-Key	SERIES	GM	NO.:	PUBLISH DATE	2022-03-25

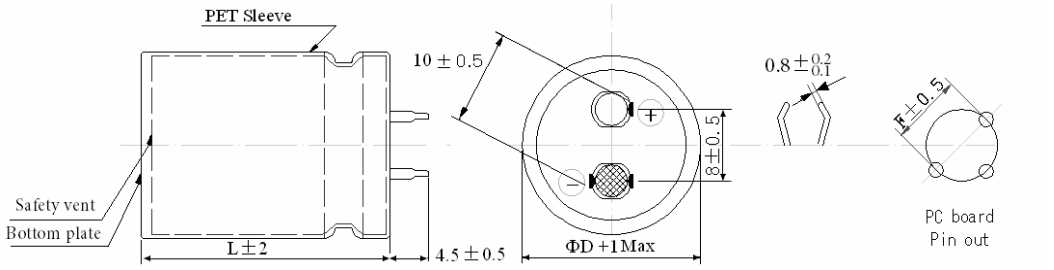


FIG-1

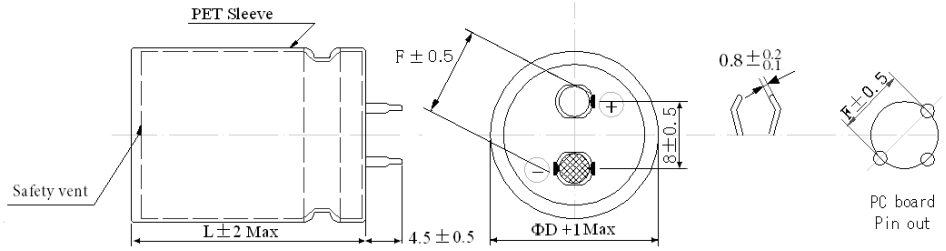


FIG-2

No.	CHINSAN Part No.	Customer Part No.	Capacitance (uF)	Tolerance On rated Capacitance (%)	Working Voltage (Vdc)	Surge Voltage (Vdc)	Category Temp Range (℃)	Tanδ @ 25℃ (120Hz) (Max)	Leakage Current (uA) (2 min.)	Rated Ripple Current (mA rms) @ 85℃ 120Hz	Rated Ripple Current (mA rms) @ 85℃ 100kHz	ESR @25℃ (mΩ max/ 120Hz)	Impedance @20℃ (mΩ max/ 100kHz)	Endurance @ 85℃ (Hours)	Dimensions (mm)					Appearance Drawing No
															D Φ	L	a	d	F	
1	GM2G391MW43045M	/	390 µF	±20%	400 V	/	-25~+85	/	/	2100	/	/	400	2000	30	45	/	/	10	FIG-1
2	GM2E182MW43555	/	1800 µF	±20%	250 V	/	-25~+85	/	/	4200	/	/	/	2000	35	55	/	/	10	FIG-1
3	GM2D102MW43040	/	1000 µF	±20%	200 V	/	-25~+85	/	/	3260	/	/	/	2000	30	40	/	/	10	FIG-1
4	GM2E152MW43551	/	1500 µF	±20%	250 V	/	-25~+85	/	/	3980	/	/	/	2000	35	51	/	/	10	FIG-1
5	GM2H681MW43551Y	/	680 µF	±20%	500 V	/	-25~+85	/	/	2800	/	/	/	2000	35	51	/	/	10	FIG-2

※Test leakage current before testing dissipation factor and capacitance during the electric characteristic test.

REMARKS:	APPROVED BY	CHECKED BY	PREPARED BY
Sleeve Color: Dark Blue. Suffix Y represents assembly without gasket.	张洪斌	曾爱娥	梁慧妍

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Customer	Digi-Key	SERIES	GM	NO.:	PUBLISH DATE	2022-03-25

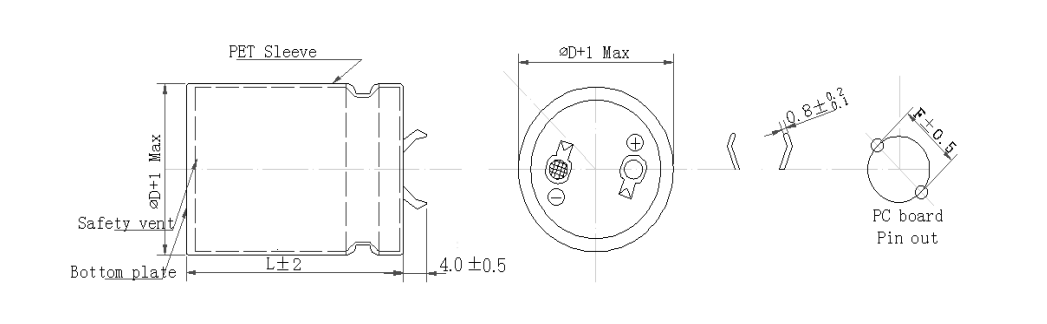


FIG-1

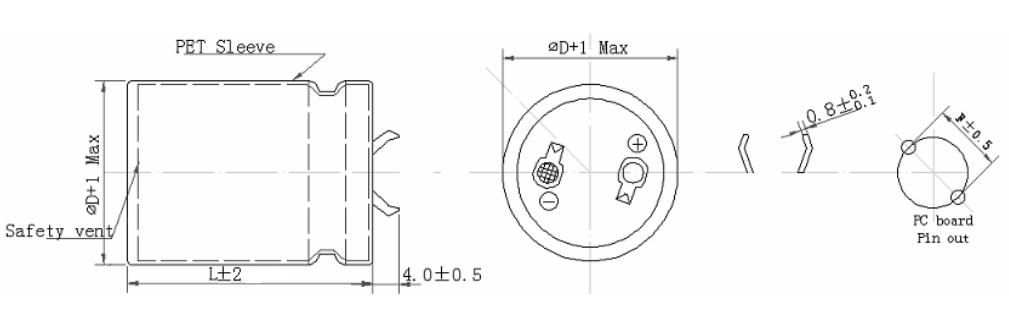


FIG-2

No.	CHINSAN Part No.	Customer Part No.	Capacitance (uF)	Tolerance On rated Capacitance (%)	Working Voltage (Vdc)	Surge Voltage (Vdc)	Category Temp Range (℃)	Tanδ @ 25℃ (120Hz) (Max)	Leakage Current (uA) (2 min.)	Rated Ripple Current (mA rms) @ 85℃ 120Hz	Rated Ripple Current (mA rms) @ 85℃ 50kHz	ESR @25℃ (mΩ max/ 120Hz)	Impedance @20℃ (mΩ max/ 100kHz)	Endurance @ 85℃ (Hours)	Dimensions (mm)					Appearance Drawing No
															DΦ	L	a	d	F	
1	GM2W331MND3035R	/	330 µF	±20%	450 V	/	-25~+85	/	/	2400	/	/	/	2000	30	35	/	/	10	FIG-1
2	GM2C122MND3041	/	1200 µF	±20%	160 V	/	-25~+85	/	/	3050	/	/	/	2000	30	41	/	/	10	FIG-1
3	GM2D561MND2040	/	560 µF	±20%	200 V	/	-25~+85	/	/	1895	/	/	/	2000	20	40	/	/	10	FIG-1
4	GM2E681MND2245	/	680 µF	±20%	250 V	/	-25~+85	/	/	2260	/	/	200	2000	22	45	/	/	10	FIG-1
5	GM2G681MND3545	/	680 µF	±20%	400 V	/	-25~+85	/	/	2720	/	/	/	2000	35	45	/	/	10	FIG-1
6	GM2S151MND2235	/	150 µF	±20%	420 V	/	-25~+85	/	/	1320	/	/	/	2000	22	35	/	/	10	FIG-1
7	GM2S391MND2551	/	390 µF	±20%	420 V	/	-25~+85	/	/	1900	/	/	/	2000	25	51	/	/	10	FIG-1
8	GM2W121MND2235	/	120 µF	±20%	450 V	/	-25~+85	/	/	1000	/	/	/	2000	22	35	/	/	10	FIG-1
9	GM2W221MND2245	/	220 µF	±20%	450 V	/	-25~+85	/	/	1450	/	/	/	2000	22	45	/	/	10	FIG-1
10	GM2W391MND3045	/	390 µF	±20%	450 V	/	-25~+85	/	/	2000	/	/	/	2000	30	45	/	/	10	FIG-1
11	GM2W391MND3535	/	390 µF	±20%	450 V	/	-25~+85	/	/	2000	/	/	/	2000	35	35	/	/	10	FIG-1

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12	GM2W681MND3055	/	680 µF	±20%	450 V	/	-25~+85	/	/	2410	/	/	/	2000	30	55	/	/	10	FIG-1
13	GM2W471MND3040Q	/	470 µF	±20%	450 V	/	-25~+85	/	/	2410	/	/	/	2000	30	40	/	/	10	FIG-1
14	GM2D681MND2235P5	/	680 µF	±20%	200 V	/	-25~+85	/	/	2000	/	/	/	2000	22	35	/	/	10	FIG-1
15	GM2S181MND2240	/	180 µF	±20%	420 V	/	-25~+85	/	/	1280	/	/	/	2000	22	40	/	/	10	FIG-1
16	GM2H471MNN3551	/	470 µF	±20%	500 V	/	-25~+85	/	/	2480	/	/	/	2000	35	51	/	/	10	FIG-1
17	GM2W181MND3031P5	/	180 µF	±20%	450 V	/	-25~+85	/	/	/	2900	/	/	2000	30	31	/	/	10	FIG-1
18	GM2G221MND2540	/	220 µF	±20%	400 V	/	-25~+85	/	/	1530	/	/	/	2000	25	40	/	/	10	FIG-1
19	GM2W151VND2235	/	150 µF	10%~20%	450 V	/	-25~+85	/	/	1190	/	950	/	2000	22	35	/	/	10	FIG-1
20	GM2A152MNN2531	/	1500 µF	±20%	100 V	/	-40~+85	/	/	2080	/	/	/	2000	25	31	/	/	10	FIG-1
21	GM2G271MND2245	/	270 µF	±20%	400 V	/	-25~+85	/	/	1560	/	740	520	2000	22	45	/	/	10	FIG-1
22	GM2D331MND2031	/	330 µF	±20%	200 V	/	-25~+85	/	/	1500	/	/	/	2000	20	31	/	/	10	FIG-1
23	GM2W102MND3565	/	1000 µF	±20%	450 V	/	-25~+85	/	/	3500	/	/	/	2000	35	65	/	/	10	FIG-1
24	GM2W681MND3551	/	680 µF	±20%	450 V	/	-25~+85	/	/	2600	/	/	/	2000	35	51	/	/	10	FIG-1
25	GM2G331MND2545	/	330 µF	±20%	400 V	/	-25~+85	/	/	1730	/	/	/	2000	25	45	/	/	10	FIG-1
26	GM2G471MNN3540R	/	470 µF	±20%	400 V	/	-25~+85	/	/	2400	/	480	/	2000	35	40	/	/	10	FIG-1
27	GM2S471MND3045Y	/	470 µF	±20%	420 V	/	-25~+85	/	/	2154	/	/	/	2000	30	45	/	/	10	FIG-2
28	GM2D222MND3050Y	/	2200 µF	±20%	200 V	/	-25~+85	/	/	4100	/	/	/	2000	30	50	/	/	10	FIG-2
29	GM2E821MND2545	/	820 µF	±20%	250 V	/	-25~+85	/	/	2485	/	/	/	2000	25	45	/	/	10	FIG-1
30	GM2G101MNN2231	/	100 µF	±20%	400 V	/	-25~+85	/	/	880	/	/	/	2000	22	31	/	/	10	FIG-1
31	GM2W471MNN3545Q	/	470 µF	±20%	450 V	/	-25~+85	/	/	2500	/	/	/	2000	35	45	/	/	10	FIG-1
32	GM2G121MND2225	/	120 µF	±20%	400 V	/	-25~+85	/	/	970	/	/	1130	2000	22	25	/	/	10	FIG-1
33	GM2W331MND2255R	/	330 µF	±20%	450 V	/	-25~+85	/	/	1960	/	/	/	2000	22	55	/	/	10	FIG-1
34	GM2W221MND2245AR	/	220 µF	±20%	450 V	/	-25~+85	/	/	1400	/	/	/	2000	22	45	/	/	10	FIG-1
35	GM2W101MND2235RP	/	100 µF	±20%	450 V	/	-25~+85	/	/	930	/	/	/	2000	22	35	/	/	10	FIG-1
36	GM2G391MND2545	/	390 µF	±20%	400 V	/	-25~+85	/	/	1769	/	/	/	2000	25	45	/	/	10	FIG-1
37	GM2W391MND3045	/	390 µF	±20%	450 V	/	-25~+85	/	/	2000	/	/	/	2000	30	45	/	/	10	FIG-1
38	GM2E102MND3051RP	/	1000 µF	±20%	250 V	/	-25~+85	/	/	3310	/	240	/	2000	30	51	/	/	10	FIG-1

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39	GM2G471MND3045P9	/	470 µF	±20%	400 V	/	-25~+85	/	/	2400	/	/	/	2000	30	45	/	/	10	FIG-1
40	GM2G181VND2240	/	180 µF	10%~20%	400 V	/	-25~+85	/	/	1329	/	/	/	2000	22	40	/	/	10	FIG-1

※Test leakage current before testing dissipation factor and capacitance during the electric characteristic test.

REMARKS:	APPROVED BY	CHECKED BY	PREPARED BY
Sleeve Color: Dark Blue. Suffix Y represents assembly without gasket. Suffix P5 : indicates Black PET sleeve. Suffix P9 : indicates Black PET sleeve. Suffix Q indicates APP glue.	张洪斌	曾爱娥	梁慧妍

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GM2E102MND3051RP PL2W391MND3040 UPE0J561MCG6308 UPE1A471MP26311U VJ2W470MNN1625A6 CED1E470MCB6358 GM2W471MND3040Q EM1H100MP26307F2P9U EV1V680MP26311SU EY1V332MNN1836 CTB1A101MCB0558 EY2A4R7MP20511F6U PL2G561MND3045Y PL2W221MND2545RP UPE1C271MCE6308R UPR0J561MP26308 EY1K331MP51225ER MW2E220MNN1016R PL2W221MND2530 UPC7H471MP26308F5 MW2S820MNN1825A4EF3 PL2G680MND2220R PL2W871MND3060Y SM2E330MP51020 UPR0J471MP26308U ED1H560MNN6311ERU EH2A330MP51009F4U EJ1V151MP26311U CED1C470MCB0558 ER1E221MP51007RU