

GA series

■ 特性 Features

- 固液混合品 solid-liquid hybrid products
- 105°C 2000~10000Hrs

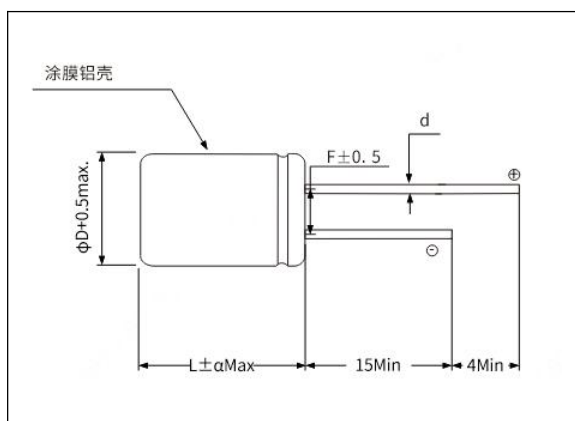
■ 仕样 Specifications



项目 Item	条件 Condition	性能 Performance
使用温度范围 Operating Temperature Range	-	-55°C~+105°C
额定电压范围 Rated Voltage Range	-	2.5~100V
额定静电容量范围 Rated Capacitance Range	-	4.7~4700µF
额定静电容量容许差 Capacitance Tolerance	120Hz, 20°C	±20%
漏电流 Leakage Current(LC)	施加额定电压 2 分钟后 After applying rated voltage for 2 minutes	$I \leq 0.01CV$ 或 $10\mu A$ (以较大值为准) $I \leq 0.01CV$ or $10\mu A$ (whichever is greater)
耐久性 Endurance	在 105°C 环境下, 施加额定工作电压并叠加纹波电流, 恢复到 20°C 后, 电容器应满足如下要求 Under 105°C, apply rated voltage and superimpose ripple current, then return to 20°C, The capacitors shall meet the following requirements.	
	静电容量变化率 Capacitance Change	初始值的 ±20% 以内 Within ±20% of initial value
	漏电流 Leakage Current	初始规定值以内 Not exceed the value specified
	等效串联电阻 ESR	初始标准值的 150% 以下 Not exceed 150% of initial standard value
	损失角正切值(tan δ) Dissipation Factor(tan δ)	初始标准值的 150% 以下 Not exceed 150% of initial standard value
耐湿性 Moisture Resistance	存放在 60°C, 湿度 90~95%, 1000H Stored at 60°C, RH90~95%, 1000H	
	静电容量变化率 Capacitance Change	初始值的 ±20% 以内 Within ±20% of initial value
	漏电流 Leakage Current	初始规定值以内 Not exceed the value specified
	等效串联电阻 ESR	初始标准值的 150% 以下 Not exceed 150% of initial standard value
	损失角正切值(tan δ) Dissipation Factor(tan δ)	初始标准值的 150% 以下 Not exceed 150% of initial standard value

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■ 尺寸图 Dimensions



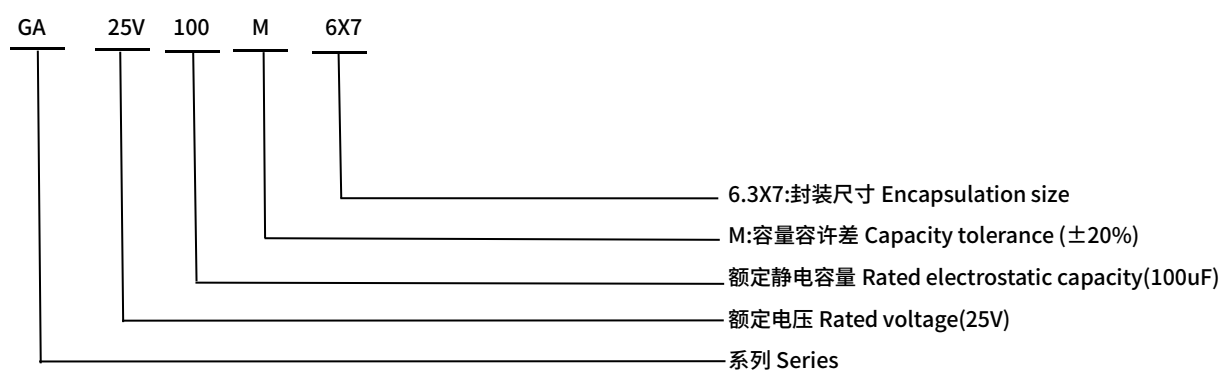
(Unit:mm)

$\Phi D \times L$	$\Phi D + 0.5 \text{ max}$	α	$F \pm 0.5$	$\Phi d \pm 0.05$
5×5-18	5	1	2	0.5
5.5×5-18	5.5	1	2.5	0.5
6.3×5-9	6.3	1	2.5	0.5/0.6
6.3×11-20	6.3	1	2.5	0.6
8×7P-15P	8	1	2.5	0.6
8×7-20	8	1	3.5	0.6
10×10-20	10	1	5	0.6

■ 频率系数及波纹电流速查表 Frequency Coefficient for Ripple Current

频率 Frequency	$120\text{Hz} \leq f_r < 1\text{KHz}$	$1\text{KHz} \leq f_r < 10\text{KHz}$	$10\text{KHz} \leq f_r < 100\text{KHz}$	$100\text{KHz} \leq f_r < 300\text{KHz}$
纹波修正系数 coefficient	0.05	0.3	0.7	1.0

■ 品号编码体系 Part Number Coding System (Example: 25V 100μF)



注释: 型号中 R 表示小数点, 如 4R7 表示 4.7μF

Note: "R" in the model number denotes a decimal point (e.g., 4R7 = 4.7μF)

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■ 电气特性 Electrical Characteristics

额定电压 Rated Voltage (V)	额定静电容容量 Rated Capacitance (μ F)	漏电流 Leakage Current (μ A,2min)	损失角正切值 Dissipation Factor (120Hz,20°C)	等效串联电阻 ESR (m Ω ,100KHz)	额定纹波电流 Rated Ripple Current (mA,105°C,100KHz)	尺寸 Dimensions Φ DXL(mm)	品号 Part Number
16	100	16	8	25	2000	6.3X8	GA16V100M6X8
	220	35.2	8	20	2300	8X8	GA16V220M8X8
	330	52.8	16	16	2300	8X11.5	GA16V330M8X11
	470	75.2	16	16	2500	10X11.5	GA16V470M10X11
	560	89.6	16	14	2500	10X12.5	GA16V560M10X12
	680	108.8	16	12	2500	10X15	GA16V680M10X15
	820	131.2	16	12	2500	10X15	GA16V820M10X15
	1000	160	16	12	2500	10X17	GA16V1000M10X17
25	68	17	8	25	2000	6.3X7	GA25V68M6X7
	100	25	14	25	2000	6.3X7	GA25V100M6X7
	150	37.5	8	30	2000	6.3X7	GA25V150M6X7
	220	55	14	20	2300	8X11.5	GA25V220M8X11
	330	82.5	14	18	2500	10X11.5	GA25V330M10X11
	470	117.5	14	16	2500	10X12.5	GA25V470M10X12
	560	140	14	12	2500	10X15	GA25V560M10X15
35	680	170	14	12	2500	10X17	GA25V680M10X17
	68	23.8	12	30	2000	6.3X8	GA35V68M6.3X8
	100	35	12	25	2300	8X8	GA35V100M8X8
	220	77	12	20	2300	8X11.5	GA35V220M8X11
	270	94.5	12	16	2500	10X11.5	GA35V270M10X11
	330	115.5	12	14	2500	10X12.5	GA35V330M10X12
	470	164.5	12	12	2500	10X15	GA35V470M10X15
	560	196	12	12	2500	10X17	GA35V560M10X17
50	33	16.5	10	35	1600	6.3X8	GA50V33M6.3X8
	47	23.5	10	30	1800	8X8	GA50V47M8X8
	68	34	10	25	1800	8X11.5	GA50V68M8X11
	100	50	10	20	2000	10X11.5	GA50V100M10X11
	150	75	10	20	2000	10X12.5	GA50V150M10X12
	220	110	10	18	2000	10X15	GA50V220M10X15

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额定电压 Rated Voltage (V)	额定静电容量 Rated Capacitance (μ F)	漏电流 Leakage Current (μ A,2min)	损失角正切值 Dissipation Factor (120Hz,20°C)	等效串联电阻 ESR (m Ω ,100KHz)	额定纹波电流 Rated Ripple Current (mA,105°C,100KHz)	尺寸 Dimensions Φ DXL(mm)	品号 Part Number
50	270	135	10	18	2000	10X17	GA50V270M10X17
63	33	20.8	8	30	1500	6.3X8	GA63V33M6.3X8
	47	29.6	8	25	1700	8X8	GA63V47M8X8
	68	42.8	8	25	1700	8X11.5	GA63V68M8X11
	100	63	8	20	1800	10X11.5	GA63V100M10X11
	150	94.5	8	18	1800	10X15	GA63V150M10X15
	180	113.4	8	18	1800	10X17	GA63V180M10X17
100	22	22	8	25	1500	8X11.5	GA100V22M8X11
	33	33	8	25	1700	10X11.5	GA100V33M10X11
	47	47	8	25	1700	10X11.5	GA100V47M10X11
	56	56	8	20	1700	10X12.5	GA100V56M10X12
	68	68	8	20	1700	10X15	GA100V68M10X15