

RT series

■ 特性 Features

- 105°C2000H 标准品 105°C2000H standard
- 适用于高密度表面安装 Suitable for High-Density Surface Mounting
- 高稳定性和可靠性 High Stability and Reliability



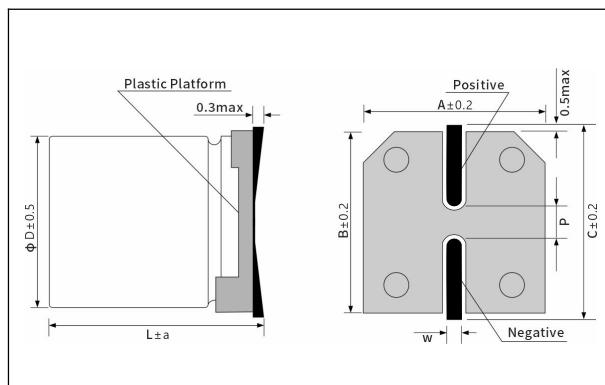
■ 仕様 Specifications

项目 Item	条件 Condition		性能 Performance							
使用温度范围 Operating Temperature Range	-		-40°C~+105°C							
额定电压范围 Rated Voltage Range	-		6.3~100V							
额定静容量范围 Rated Capacitance Range	-		1.0~1500μF							
额定静容量容许差 Capacitance Tolerance	120Hz, 20°C		±20%							
漏电流 Leakage current	施加额定电压 2 分钟后 After applying rated voltage for 2 minutes		I ≤ 0.01CV 或 3μA (以较大值为准) I ≤ 0.01CV or 3μA (whichever is greater)							
额定电压 Rated Voltage(V)	-		6.3	10	16	25	35	50	63	100
损失角正切值 Dissipation Factor	120Hz, 20°C (Max.)	tan δ	0.30	0.24	0.20	0.16	0.14	0.14	0.14	0.14
		对于超过 1000μF 的产品, 每增加 1000μF, 其值便随之增加 0.02 For products exceeding 1000μF, the value increases by 0.02 per additional 1000μF.								
温度特性 Temperature Characteristics	阻抗率 Impedance Ratio(Max.)	Z _{(-25°C)/Z_(+20°C)}	4	3	2	2	2	2	2	3
		Z _{(-40°C)/Z_(+20°C)}	10	8	6	5	5	5	6	6
耐久性 Endurance	在 105°C 下, 连续施加额定电压 2000 小时后, 满足以下项目 Under 105°C, apply rated voltage for 2000 hours, The capacitors shall meet the following requirements.									
	静容量变化率 Capacitance Change	初始值的 ±30% 以内 ≤ ±30% of the initial value.								
	损失角正切值 Dissipation Factor	规格值 300% 以下 ≤ 300% of initial specified value.								
	漏电流 Leakage Current	规格值以下 ≤ Initial specified value.								

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尺寸图 Dimensions

(Unit: mm)

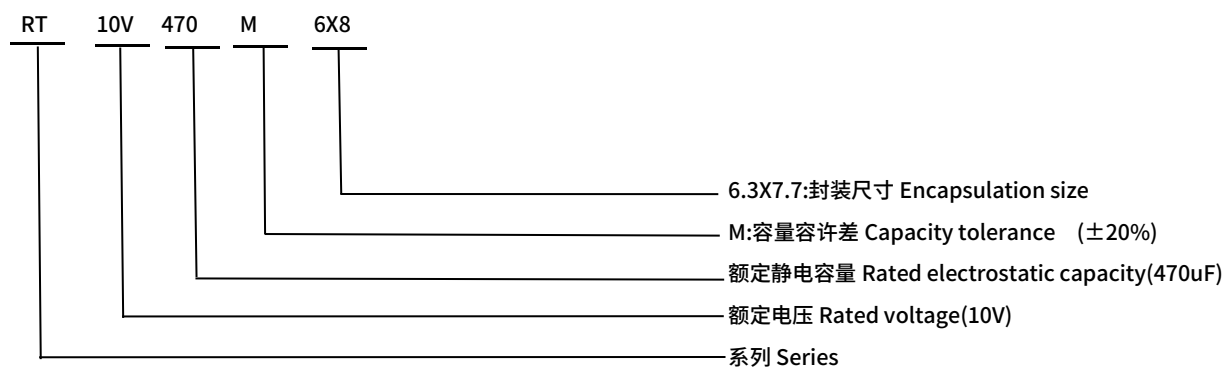


D	L	A	B	C	P	α	W
4	5.4	4.3	4.3	5.0	1.0	± 0.5	0.5-0.8
5	5.4	5.3	5.3	6.0	1.5	± 0.5	0.5-0.8
6.3	5.4	6.6	6.6	7.2	2.1	± 0.5	0.5-0.8
6.3	7.7	6.6	6.6	7.2	2.1	± 0.5	0.5-0.8
8.0	10.5	8.3	8.3	9.1	3.1	± 0.5	0.7-1.2
10.0	10.5	10.3	10.3	11.1	4.5	± 0.5	0.7-1.2

纹波电流速查表 Ripple Current Quick Reference Table:

频率 Freq. 容值 Cap.	50Hz	120Hz	300Hz	1kHz	10kHz Up
1~10 μF	0.60	1.0	1.15	1.25	1.40
22~1500 μF	0.75	1.0	1.10	1.20	1.35

品号编码体系 Part Number Coding System (Example: 10V470 μF)



注释: 型号中 R 表示小数点, 如 4R7 表示 4.7 μF

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

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■ 电气特性 Electrical characteristics

额定电压 Rated Voltage(V)	额定静容量 Rated Capacitance(μ F)	铝壳尺寸 Case Size Φ DXL(mm)	漏电流 Leakage current (μ A,2min)	额定纹波电流 Rated Ripple Current (mA,105°C,120Hz)	损失角 正切值 tan δ	品号 Part Number
6.3	47	4X5.4	3	25	0.3	RT6.3V47M4X5
	100	5X5.4	6.3	39	0.3	RT6.3V100M5X5
	820	8X10.5	51.6	230	0.3	RT6.3V820M8X10
	1000	8X10.5	63	230	0.3	RT6.3V1000M8X10
10	47	4X5.4	4.7	25	0.24	RT10V47M4X5
	100	5X5.4	10	39	0.24	RT10V100M5X5
	220	6.3X5.4	22	85	0.24	RT10V220M6X5
	330	6.3X7.7	33	105	0.24	RT10V330M6X8
	470	6.3X7.7	47	120	0.24	RT10V470M6X8
	470	8X6.5	47	105	0.24	RT10V470M8X6
	1000	8X10.5	100	230	0.24	RT10V1000M8X10
16	10	4X5.4	3	18	0.2	RT16V10M4X5
	22	4X5.4	3.52	20	0.2	RT16V22M4X5
	33	4X5.4	5.28	22	0.2	RT16V33M4X5
	47	5X5.4	7.52	31	0.2	RT16V47M5X5
	100	6.3X5.4	16	60	0.2	RT16V100M6X5
	100	5X5.4	16	39	0.2	RT16V100M5X5
	220	6.3X7.7	35.2	105	0.2	RT16V220M6X8
	220	6.3X5.4	35.2	85	0.2	RT16V220M6X5
	220	8X6.5	35.2	85	0.2	RT16V220M8X6
	330	6.3X7.7	52.8	105	0.2	RT16V330M6X8
	470	8X10.5	75.2	230	0.2	RT16V470M8X10
	470	6.3X7.7	75.2	145	0.2	RT16V470M6X8
	1000	10X10.5	160	347	0.2	RT16V1000M10X10
25	10	4X5.4	3	14	0.16	RT25V10M4X5
	22	5X5.4	5.5	25	0.16	RT25V22M5X5
	47	5X5.4	11.75	31	0.16	RT25V47M5X5
	47	6.3X5.4	11.75	48	0.16	RT25V47M6X5
	68	6.3X5.4	17	48	0.16	RT25V68M6X5
	100	6.3X7.7	25	65	0.16	RT25V100M6X8
	100	6.3X5.4	25	60	0.16	RT25V100M6X5
	220	8X10.5	55	175	0.16	RT25V220M8X10
	220	6.3X7.7	55	105	0.16	RT25V220M6X8

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额定电压 Rated Voltage(V)	额定静容量 Rated Capacitance(μF)	铝壳尺寸 Case Size Φ DXL(mm)	漏电流 Leakage current (μA,2min)	额定纹波电流 Rated Ripple Current (mA,105°C,120Hz)	损失角 正切值 tan δ	品号 Part Number
25	330	8X10.5	82.5	220	0.16	RT25V330M8X10
	470	8X10.5	117.5	230	0.16	RT25V470M8X10
35	10	4X5.4	3.5	14	0.14	RT35V10M4X5
	22	5X5.4	7.7	28	0.14	RT35V22M5X5
	33	6.3X5.4	11.55	38	0.14	RT35V33M6X5
	33	5X5.4	11.55	22	0.14	RT35V33M5X5
	47	6.3X5.4	16.4	50	0.14	RT35V47M6X5
	47	5X5.4	16.45	31	0.14	RT35V47M5X5
	100	6.3X7.7	35	84	0.14	RT35V100M6X8
	100	6.3X5.4	35	60	0.14	RT35V100M6X5
	100	8X6.5	35	70	0.14	RT35V100M8X6
	120	6.3X7.7	42	91	0.14	RT35V120M6X8
	150	6.3X7.7	52.5	100	0.14	RT35V150M6X8
	220	8X10.5	77	190	0.14	RT35V220M8X10
	470	10X10.5	164.5	286	0.14	RT35V470M10X10
50	1	4X5.4	3	7	0.14	RT50V1M4X5
	2.2	4X5.4	3	11	0.14	RT50V2R2M4X5
	3.3	4X5.4	3	13	0.14	RT50V3R3M4X5
	4.7	4X5.4	3	13	0.14	RT50V4R7M4X5
	6.8	5X5.4	3.4	16	0.14	RT50V6R8M5X5
	10	5X5.4	5	21	0.14	RT50V10M5X5
	10	6.3X5.4	5	24	0.14	RT50V10M6X5
	22	6.3X5.4	11	42	0.14	RT50V22M6X5
	47	6.3X7.7	23.5	63	0.14	RT50V47M6X8
	47	6.3X5.4	23.5	50	0.14	RT50V47M6X5
	47	8X6.5	23.5	48	0.14	RT50V47M8X6
	68	8X6.5	34	48	0.14	RT50V68M8X6
	100	8X10.5	50	140	0.14	RT50V100M8X10
	100	6.3X7.7	50	80	0.14	RT50V100M6X8
	220	10X10.5	110	220	0.14	RT50V220M10X10
	330	10X10.5	165	247	0.14	RT50V330M10X10
63	10	6.3X5.4	6.3	24	0.14	RT63V10M6X5
	22	6.3X5.4	13.86	28	0.14	RT63V22M6X5
	22	6.3X7.7	13.86	35	0.14	RT63V22M6X8
	22	8X6.5	13.8	49	0.14	RT63V22M8X6

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额定电压 Rated Voltage(V)	额定静容量 Rated Capacitance(μF)	铝壳尺寸 Case Size Φ DXL(mm)	漏电流 Leakage current (μA,2min)	额定纹波电流 Rated Ripple Current (mA,105°C,120Hz)	损失角 正切值 tan δ	品号 Part Number
63	47	6.3X7.7	29.61	63	0.14	RT63V47M6X8
	100	8X10.5	63	140	0.14	RT63V100M8X10
	100	10X10.5	63	200	0.14	RT63V100M10X10
	220	10X10.5	138.6	230	0.14	RT63V220M10X10
100	2.2	5X5.4	3	13	0.14	RT100V2.2M5X5
	4.7	5X5.4	4.7	16	0.14	RT100V4R7M5X5
	4.7	6.3X5.4	4.7	21	0.14	RT100V4R7M6X5
	10	6.3X5.4	10	24	0.14	RT100V10M6X5
	10	6.3X7.7	10	35	0.14	RT100V10M6X8
	22	8X10.5	22	84	0.14	RT100V22M8X10
	22	6.3X7.7	22	35	0.14	RT100V22M6X8
	47	8X10.5	47	119	0.14	RT100V47M8X10

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■ 焊接条件 Welding Conditions

(1)应采用红外线及热风回流焊接，不宜采用汽相加热回流焊接：

A thermal condition system such as infrared radiation (IR) or hot blast should be adopted. and vapor heat transfer systems (VPS) are not recommended.

(2)推荐回流焊只进行一次，回流焊次数如果需要二次，必须相隔 30 分钟以上：

Reflow soldering should be performed one time. If the capacitor has to be reflowed twice, 30 minutes must be layout between each time.

(3)无铅回流焊，请符合下述条件：

For lead-free type reflow soldering, please observe proper conditions below:

a)从 150°C至 200°C的预热时间在 t_1 秒钟以内：

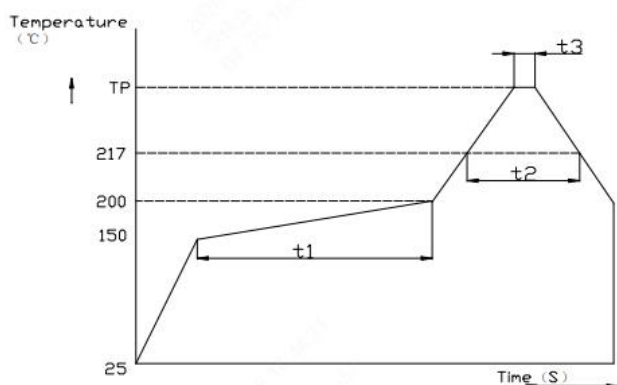
The time of preheating from 150°C to 200°C shall be within maximum t_1 seconds;

b)电容器顶部温度超过 217°C的焊接时间不超过 t_2 秒：

The time of soldering temperature at 217°C measured on capacitors' top shall not exceed t_2 (second);

c)电容器顶部尖峰温度不超过 T_p °C，在 5°C范围内的实际尖峰温度时间不超过 t_3 秒

The peak temperature on capacitors' top shall not exceed T_p (°C), and the time within 5°C of actual peak temperature shall not exceed t_3 (second).



备注：

1. 温度上升平均每秒钟最多 3°C；

The average temperature rise shall not exceed 3°C per second.

2. 温度下降平均每秒钟最多 6°C；

The average temperature drop shall not exceed 6°C per second.

3. 从 25°C上升到峰值温度的时间最多 8 分钟；

The time to rise from 25°C to the peak temperature shall not exceed 8 minutes.

Size	Thickness (mm)	T_p (°C)	t_1 (Max,secs)	t_2 (Max,secs)	t_3 (T_p ,secs)
$\Phi 4 \sim \Phi 6.3$	≥ 2.5	260	120	90	5
$\Phi 8$	≥ 2.5	240	100	60	5
$\Phi 10$	≥ 2.5	235	100	40	5