

特性 Features

- 小型化, 大容量, 耐高温
Miniaturized, high capacitance and high temperature
- 快速充电/放电 Quick charge & discharge
- 符合RoHS无铅要求 RoHS directive compliant



推荐应用领域 Recommended Applications

- 消费类电器 Consumer Electronics • 工业与汽车 Industrial and Automation
- 便携式电源工具 Portable Power Tools • 再生能源储能系统 Renewable Energy Storage Systems
- 短期UPS (不间断电源) Short Term UPS (Uninterruptible Power Supply)

规格 Specifications

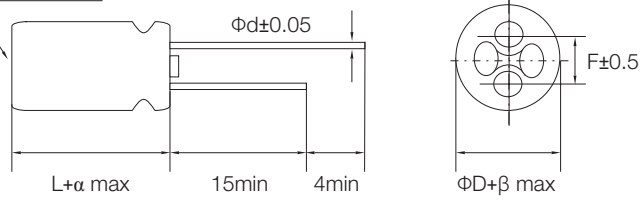
项目 Item	性能 Performance Characteristics	
温度 Temperature		
工作温度范围 Operating Temperature Range	-25°C to +70°C	
容量 Capacitance		
容量范围 Nominal Capacitance Range	1.0F to 350F	
容量公差 Capacitance Tolerance	±20% or -20%~+50%	
电压 Voltage		
额定电压 Rated Voltage	2.5 V.DC	
浪涌电压 Surge Voltage	2.7 V.DC	
最大工作电压 Maximum Operating Voltage	2.5 V.DC	
阻抗 Resistance		
直流等值阻抗 ESR, DC	详见附件电性能列表 (表1) Please see the attached characteristics list (table 1)	
交流等值阻抗 ESR, AC	详见附件电性能列表 (1kHz/20°C) (表1) Please see the attached characteristics list (1kHz/20°C) (table 1)	
功率 Power		
功率 Pv	详见附件电性能列表 (表2) Please see the attached characteristics list (table 2)	
能量 Energy		
能量密度 Energy Density (E _{max})	详见附件电性能列表 (表2) Please see the attached characteristics list (table 2)	
寿命 Lifespan		
贮存寿命 Shelf Life	+70°C下无负荷贮存1,000小时后电容器符合规定的限值 After 1,000 hours storage at +70°C without load, the capacitor shall meet the specified limits for endurance.	
耐用性 Endurance	+70°C下采用额定电压1,000小时后电容器符合以下限定值 After 1,000 hours application of rated voltage at +70°C, the capacitor shall meet the following limits.	
	容量变化 Capacitance Change	初始测试值的±30% ±30% of initial measured value
	内阻 Internal Resistance	≤初始规定值的2倍 ≤2 times of initial specified value
循环次数 Cycles		
循环次数 Cycles	在+25°C下, 用恒定电流使电容器在规定电压和半额定电压间循环充放电 (500,000次) Capacitors cycles between specified voltage and half rated voltage under constant current at +25°C (500,000 cycles)	
	容量变化 Capacitance Change	初始测试值的±30% ±30% of initial measured value
	内阻 Internal Resistance	≤初始规定值的2倍 ≤2 times of initial specified value

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壳号尺寸表 Case Size Table

端子 Terminal: RR

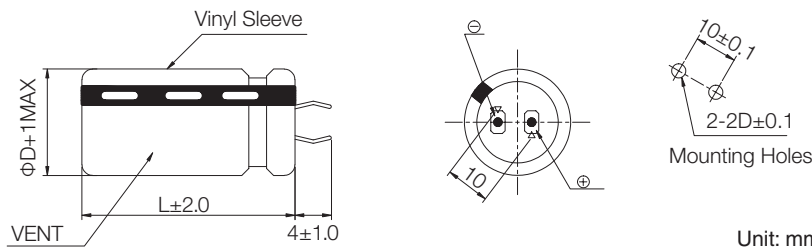
Safety vent for $\Phi \geq 6.3$



Unit: mm

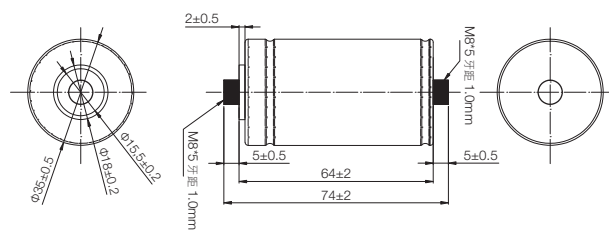
ΦD	8(L<20)	8(L \geq 20)	10	12.5	16	18
F	3.5	3.5	5.0	5.0	7.5	7.5
Φd	0.5	0.6	0.6	0.6	0.8	0.8
α	(L<20)1.5		(L \geq 20)2.0			
β	(D<20)0.5		(D \geq 20)1.0			

端子 Terminal: SZ



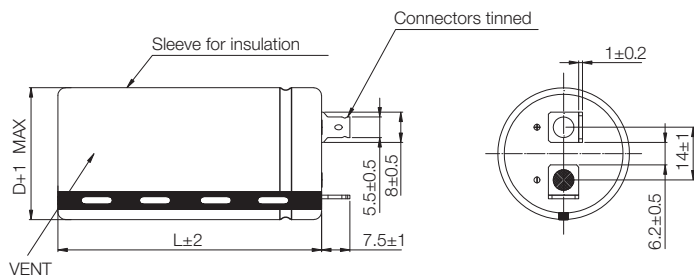
Unit: mm

端子 Terminal: AE (350F)



Unit: mm

端子 Terminal: L6



Unit: mm

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电性能列表 Characteristics List

• 表1 Table 1

产品编码 Part Number	额定电压 Rated Voltage (V.DC)	额定容量 Rated Cap. (F)	尺寸 Size 直径 x 长度 ΦD x L (mm)	直流等值阻抗 ESR, DC (mΩ) (max)	交流等值阻抗 ESR, AC (mΩ) (max) at 1kHz/20°C	漏电流 Leakage Current (mA/72hrs)	短路电流 Short Circuit Current (A)	最大持续电流 Maximum Continuous Current (A) (ΔT=15°C)	最大峰值电流 Maximum Peak Current (Isc) (A)
DRE105S0EF12RR	2.5	1.0	8 x 12	1000	500	0.008	2.5	0.3	0.63
DRE205S0EF16RR	2.5	2.0	8 x 16	550	350	0.010	4.5	0.5	1.19
DRE305S0EF20RR	2.5	3.0	8 x 20	410	260	0.012	6.1	0.7	1.68
DRE335S0EG20RR	2.5	3.3	10 x 20	320	200	0.014	7.8	0.8	2.01
DRE475S0EG20RR	2.5	4.7	10 x 20	290	180	0.016	8.6	0.8	2.49
DRE705S0EG25RR	2.5	7.0	10 x 25	220	140	0.020	11.3	1.0	3.44
DRE106S0EG30RR	2.5	10	10 x 30	165	110	0.030	15.2	1.3	4.72
DRE106S0EI25RR	2.5	10	12.5 x 25	160	100	0.030	15.6	1.3	4.81
DRE256S0EK25RR	2.5	25	16 x 25	100	60	0.060	25.0	1.9	8.93
DRE306S0EK30RR	2.5	30	16 x 30	70	40	0.070	35.7	2.5	12.1
DRE506S0EL40RR	2.5	50	18 x 40	50	30	0.160	50.0	3.6	17.9
DRE107S0EL60RR	2.5	100	18 x 60	35	25	0.300	71	5.2	27.8
DRE107S0EN45SZ	2.5	100	22 x 45	35	25	0.300	71	5.2	27.8
DRE157S0EO55SZ	2.5	150	25 x 55	30	22	0.550	83	6.4	34.1
DRE207S0EP50SZ	2.5	200	30 x 50	25	20	0.700	100	7.4	41.7
DRE257S0EP55SZ	2.5	250	30 x 55	22	18	0.800	114	8.3	48.1
DRE357S0EQ60SZ	2.5	350	35 x 60	15	12	1.000	167	11.3	70.0
DRE357S0EQ60AE	2.5	350	35 x 60	3	2.5	1.000	833	20.6	213.4

* High Pd (W/kg) and Energy Density (Emax(Wh/kg))

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电性能列表 Characteristics List

• 表2 Table 2

额定容量 Rated Capacitance (F)	1	2	3	3.3	4.7	7	10	10	25
尺寸 Size 直径 x 长度 ΦD x L (mm)	8 x 12	8 x 16	8 x 20	10 x 20	10 x 20	10 x 25	10 x 30	12.5 x 25	16 x 25
功率密度 (W/kg) Power Density (W/kg)	794	1145	1473	1071	1151	1384	1458	1170	1036
能量密度 Energy Density 最高能量值 Emax (Wh/kg)	0.9	1.5	1.6	1.3	1.8	2.5	2.5	2.2	2.6
最大能量 Maximum Energy 最高能量值 Emax (mAh)	0.87	1.74	2.60	2.86	4.08	6.08	8.68	8.68	19.10

额定容量 Rated Capacitance (F)	30	50	100	100	150	200	250	350	350
尺寸 Size 直径 x 长度 ΦD x L (mm)	16 x 30	18 x 40	18 x 60	22 x 45	25 x 55	30 x 50	30 x 55	35 x 60	35 x 60
功率密度 (W/kg) Power Density (W/kg)	1162	1067	984	866	723	652	673	676	2631
能量密度 Energy Density 最高能量值 Emax (Wh/kg)	2.8	3.1	4.0	3.5	3.8	3.8	4.3	4.1	3.2
最大能量 Maximum Energy 最高能量值 Emax (mAh)	26.0	43.4	86.8	86.80	130.20	173.60	217.00	303.80	303.80

* High Pd (W/kg) and Energy Density (Emax(Wh/kg))

其它技术信息 Additional Technical Information

Ic = 25°C下72小时后的漏电流

Ic = leakage current after 72 hours at 25°C

Isc = 短路电流 (最大峰值电流)

Isc = short circuit current (maximum peak current)

R_{DC} = 直流内阻 (DC)

R_{DC} = internal resistance (DC)

M = 电容器总重 (kg)

M = capacitor mass (kg)

功率密度

最高能量值

最大峰值电流 (1秒)

$$Pd=(0.12xU^2/R_{DC})/M$$

$$Emax=(0.5CU^2)/(3600xM)$$

$$\text{Maximum Peak Current (1 sec)}=0.5U/(ESR_{DC}+1/C)$$