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Product specification

LSUM 051R3C 0166F EA



Product specification

■ Specification

1. Primary specification

Part number	Capacitance (F)	Max. ESR (mΩ)_DC	Max. Current (A) Non-repeated (Calculated value)	Leakage Current (mA)
LSUM 051R3C 0166F EA	166	5	2,300	< 28.5

2. Power & Energy

Part number	Usable Specific Power, P_d (W/kg) ¹	Impedance Match Specific Power, P_{max} (W/kg) ²	Energy Density (Wh/kg)	Max. Stored Energy (Wh)
LSUM 051R3C 0166F EA	5,200	10,900	5.1	60.7

3. Standard & Reliability

Rated Voltage	51.3V		
Max. Voltage ³	54.0V		
Maximum series Voltage	750V		
Capacitance Tolerance	0% / +20%		
Operating temperature range	-40 ~ 65 °C		
Storage temperature range	-40 ~ 70 °C		
Max. continuous current ⁴	$\Delta T = 15$ °C	60A	
	$\Delta T = 40$ °C	100A	
Endurance Life (65°C)	1,500 Hours		
	Capacitance change	Within 20% of initially specified value	
	ESR change	Within 100% of initially specified value	
Projected Life Time (25°C)	10 Years at rated voltage		
	Capacitance change	Within 20% of initially specified value	
	ESR change	Within 100% of initially specified value	
Projected Cycle Life (25°C) ⁵	1,000,000 Cycles		
	Capacitance change	Within 20% of initially specified value	
	ESR change	Within 100% of initially specified value	
Shelf Life (25°C)	4 Years stored uncharged state		
Certifications	REACH, UL810A		

4. Monitoring

Part number	Temperature sensor	Temperature interface	Connector	Cell voltage monitoring	Balancing
LSUM 051R3C 0166F EA	PTC Thermistor	Analog	4pin connector	Over voltage alarm	Active & Passive

*Remarks

1) Usable specific power

$$P_d = \frac{0.12 \times V^2}{ESR \times mass}$$

2) Impedance match specific power

$$P_{max} = \frac{V^2}{4 \times ESR \times mass}$$

3) Non repeated, not to exceed 1sec.

4) Initial state value.

5) Actual cycle value can be subject to various application conditions.

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Safety & Physical Protection

Part number	Isolation voltage (DC)	Short circuit current(A)	Power Terminals	Recommended Torque - Terminal
LSUM 051R3C 0166F EA	2.5kV	10,200	M8 / M10	20 / 30Nm

Dimension in mm (not to scale)

Geometric properties

Part number	Dimension (mm)			Max. Weight (kg)
	Length	Wide	Height	
LSUM 051R3C 0166F EA	590.4±1.0	136.0±1.0	181.0±1.0	12

