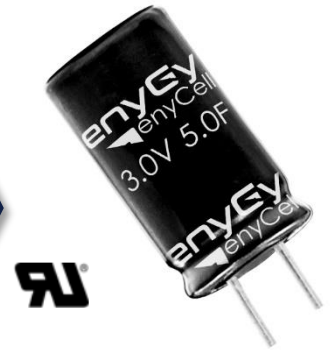




EnyGy® enyCell Series, Radial Type (Electric Double Layer Capacitors)

Datasheet EC3R050510020S

- Endurance: 3.0V 65°C 1000 hours
- High capacitance and small size
- Low ESR
- Long cycle life
- UL recognized
- RoHS compliant



Specifications

Part Number	EC3R050510020S	
Rated Voltage	V	3.0
Capacitance	F	5.0
ESR, 1kHz	mΩ	35
ESR, DC	mΩ	50
LC(72hr)	mA	0.015
Specific Energy	Wh/kg	2.72
Specific Power	kW/kg	19.57
Max. Peak Current	A	6.00
Weight	g	2.30
Volume	mL	1.57

1. Capacitance and Equivalent Series Resistance (ESR) measured according to IEC62391-1 at +25°C, with current in milliamps (mA) = 10°C
2. Leakage Current at 25°C after 72 hour charge and hold
3. Specific Energy (Wh/kg) = $(\frac{1}{2} * C * V^2 / 3600) / \text{weight}$
4. Specific Power (kW/kg) = $(V^2 / 4 * \text{ESR}) / \text{weight}$
5. Max Peak Current in Amps (A), 1 second discharge from rated voltage to half rated voltage = $(\frac{1}{2} * C * V) / (1 + \text{ESR} * C)$

Characteristics

Operating Temperature Range	-40 ~ +65°C	
Rated Voltage	3.0 VDC	
Capacitance Tolerance	-10% ~ +20%	
Temperature Characteristics	Capacitance change	Within ±5% of initial value at +25°C
	Internal resistance	Within ±50% of initial value at +25°C
Endurance	Duration	1000 hours
	Capacitance charge	Within ≤30% of initial value
	Internal resistance	Within ≤100% of initial specified value
Shelf Life	After 1000 hours no load test same as endurance	
Lifetime at RT ⁽¹⁾	10 years	
Cycle Life(25°C) ⁽²⁾	500,000 cycles	

(1) $|\Delta C| \leq 30\%$ of initial value and $|\text{ESR}| \leq 100\%$ of initial specified value.

(2) Cycle : between rated voltage and half rated voltage under constant current at 25°C.

Dimensions Unit:mm

D	10.0
L	20.0
P	5.0
Φd	0.6

