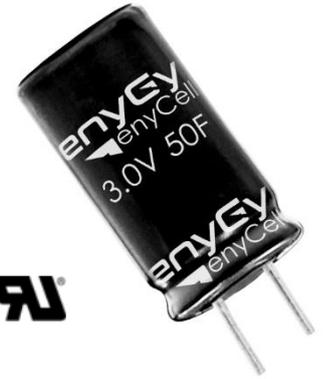




Enygy® enyCell Series, Radial Type (Electric Double Layer Capacitors)

Datasheet EC3R050618040S



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

Specifications

Part Number	EC3R050618040S	
Rated Voltage	V	3.0
Capacitance	F	50
ESR, 1kHz	mΩ	10
ESR, DC	mΩ	18
LC(72hr)	mA	0.150
Specific Energy	Wh/kg	4.81
Specific Power	kW/kg	9.62
Max. Peak Current	A	39.47
Weight	g	13.00
Volume	mL	10.17

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

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	18.0
L	40.0
P	7.5
Φd	0.8

