

MK1 Series - Ultra-Thin Flexible Printed Battery - MK1-Z053858

Zinergy's MK1 Series is the first of a new generation of ultra-thin flexible battery products. Made by printing thin layers of functional materials onto a custom designed flexible packaging material. These zinc based primary cells are suitable for cost effective low power electronic applications where safety and environmental credentials are fundamental.

🕒 Applications

- Internet of Things (IoT)
- Active RFID
- Smart Cards
- Medical Devices
- Cosmeceutical Products
- Biosensors
- Smart Textiles
- Interactive Printed Media: Greeting Cards, Consumer Packages, Toys, Promotional Electronic Displays

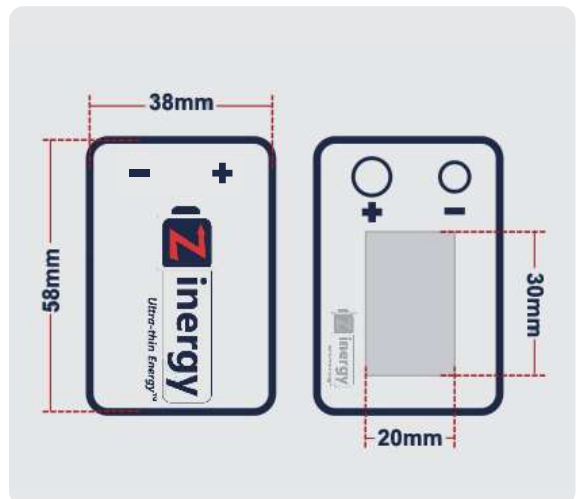
👍 Advantages

- <0.5mm thin
- Flexible form factor
- Disposable: environmentally friendly battery chemistry, no heavy metal components and no organic solvents.
- Safe: Tolerant of mechanical and physical stress.
- Co-planar architecture: easy bonding/attaching with host devices
- Highly customisable (voltage, size, shape, capacity as required)

📋 Specifications

Battery Type	Zinc Flexible
Chemical System	Zinc - Manganese Dioxide (Zn/MnO ₂)
Continuous Drain Current	0.5 mA
Max. Continuous Drain Current	2 mA
Maximum Peak Current (1)	10mA
Operating Temperature	-10°C to 50°C
Exterior Casing	Polymer Laminate
Environmentally Friendly	RoHS compliant
Nominal Voltage	1.5 V
Capacity @ 0.5mA CC	>12mAh
Initial internal resistance @ 0.5mA CC	70Ω
Height (mm)	58
Length (mm)	38
Thickness (mm)	0.5
Maximum weight	<1.2g

(1) Pulsing conditions: 100 ms pulse, 2s rest, cut-off voltage during pulse = 1 V



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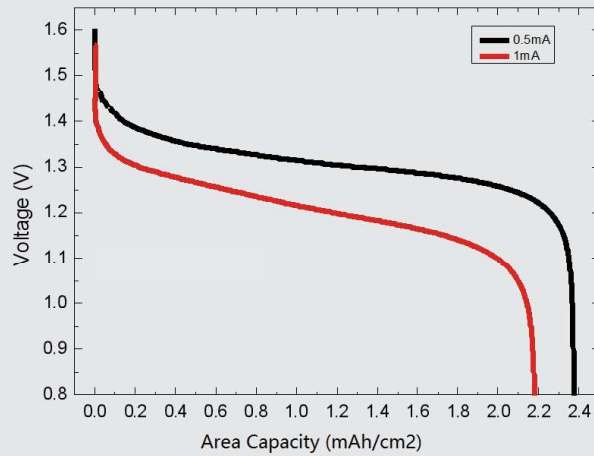
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Discharge Curve



Ultra-thin Flexible Printed Battery MK1 Series

- Bending:** >3000 cycles at a bend radius of 15 mm.
- Storage:** For optimal battery performance, please store the batteries between 5°C to 35°C in until use.
- Warning:** Zinergy MK1 series batteries are non-rechargeable, any attempt to recharge may damage the battery.
- Disposal and recycling:** Environmentally friendly battery materials and disposal (RoHS compliant without heavy metal components eg. Hg,Pb,Cd). In accordance with all applicable national, state and local regulations.
- Transportation:** Non-dangerous goods, packaging and transporting according to local transportation regulations.
- Warranty:** All specifications and technical data are based on use in electronic applications under normal operating conditions. Suitability tests should be done for the customers specific conditions and applications. For latest specs and any specific requirements, please get in touch.

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