

# CBC-PV-02 Photovoltaic Cell

## 2-Series Amorphous Silicon Solar Cell

### Features

- Amorphous silicon solar cell
- Glass substrate
- 2-series cell configuration
- Compatible with Cymbet's energy harvesting, power management, and energy storage products
- 67.3mm x 26.7mm x 1.1mm dimensions

### Applications

- Energy harvesting systems
- Wireless sensor networks
- Low power radios, microcontrollers, and sensors

### Configurations

- CBC-PV-02 has connector on lead wires
- CBC-PV-02N has no connector attached to lead wires

### Description

The CBC-PV-02 photovoltaic cell is a low voltage amorphous silicon solar cell on a glass substrate. Typical operating voltage is 0.8V with an output current of approximately 110μA at 200Lux in fluorescent light. The CBC-PV-02 is used in low power systems including wireless sensors and sensor networks.

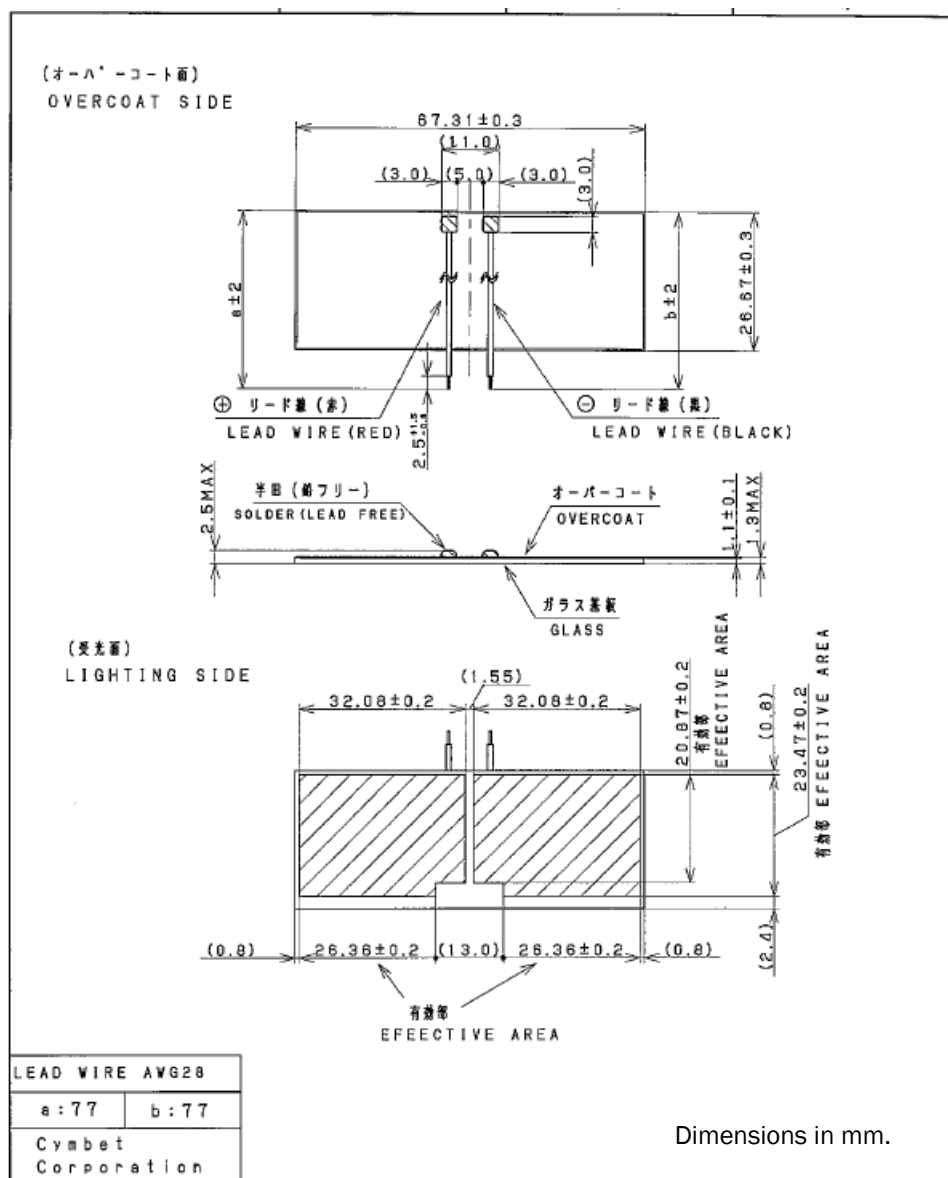
The CBC-PV-02 is compatible with Cymbet's energy harvesting products including the CBC915 Energy Processor, CBC-EVAL-09 development kit and EnerChip solid state rechargeable storage devices.

The CBC-PV-02 operating characteristics are given in detail in the following table.

## CBC-PV-02 Operating Characteristics

| Specification                           | Symbol                       | Condition                        | Min | Typ                 | Max | Units   |
|-----------------------------------------|------------------------------|----------------------------------|-----|---------------------|-----|---------|
| Open Circuit Voltage                    | Voc                          | 200Lux FL <sup>(1)</sup> , 25 °C | --- | 1.2                 | --- | V       |
| Short Circuit Current                   | Isc                          | 200Lux FL <sup>(1)</sup> , 25 °C | --- | 116                 | --- | μA      |
| Operating Voltage and Operating Current | Vope and Iope                | 200Lux FL <sup>(1)</sup> , 25 °C | --- | 0.8<br>110          | --- | V<br>μA |
| Working Temperature                     | Tw                           | ---                              | -10 | ---                 | 60  | °C      |
| Storage Temperature                     | Ts                           | ---                              | -20 | ---                 | 70  | °C      |
| Working Illuminance Range               | Lw                           | ---                              | --- | 1000                | --- | Lux     |
| Outside Dimensions                      | Length<br>Width<br>Thickness | ---                              | --- | 67.3<br>26.7<br>1.1 | --- | mm      |

<sup>(1)</sup> FL: White fluorescent light.

**CBC-PV-02 Mechanical Drawing****Ordering Information**

| Part Number | Description                  | Notes            |
|-------------|------------------------------|------------------|
| CBC-PV-02   | Solar Cell with connector    | Shipped in Boxes |
| CBC-PV-02N  | Solar Cell without connector | Shipped in Boxes |

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