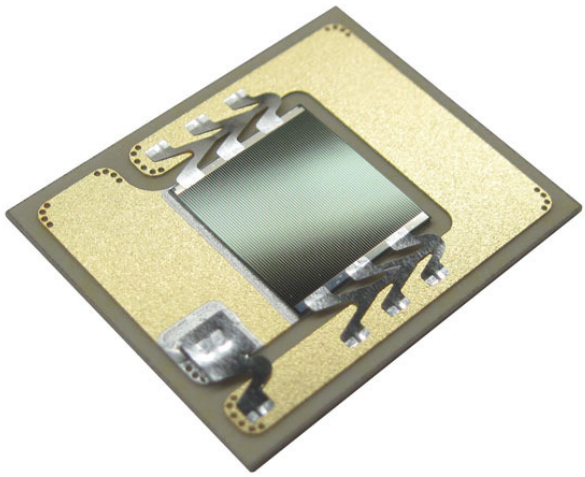
*Prototype Product

CCA 100 C3MJ 1A Concentrator Cell Assembly



A concentrator cell assembly (CCA) consists of a Spectrolab state of the art triple junction solar cell and a bypass diode attached to a ceramic substrate. This assembly provides a robust package for easy integration into a solar concentration system.

The ceramic substrate offers excellent thermal conductivity and a compatible coefficient of thermal expansion with the solar cell. High current carrying interconnects are attached to the solar cell using Spectrolab's proprietary welding process.

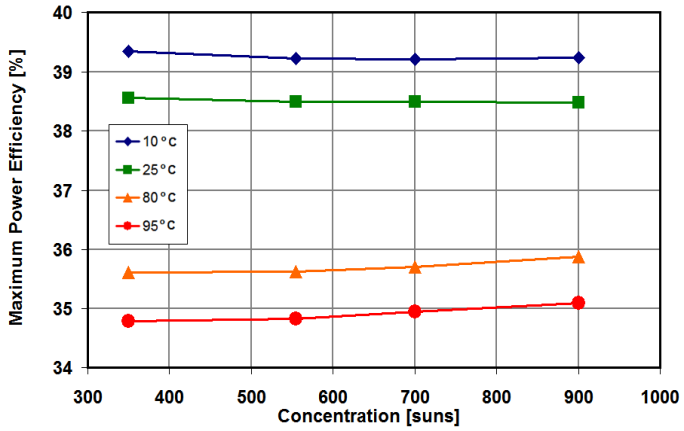
Large solderable and weldable surfaces are provided for attachment of wire leads or connectors.

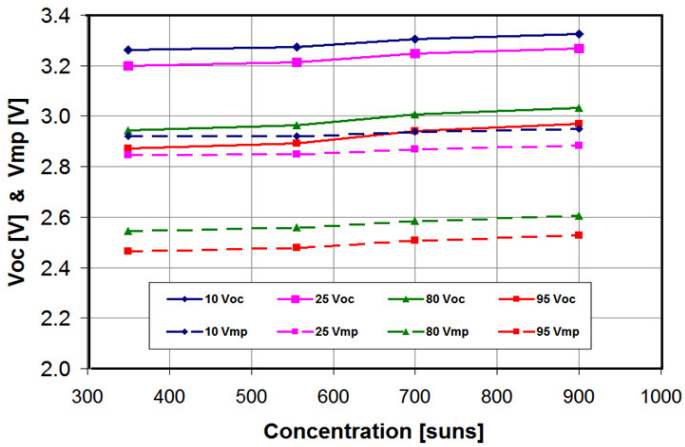
The cell is attached to the ceramic substrate virtually void free using a proprietary process that is designed for efficient heat transfer away from the solar cell surface.

Specifications

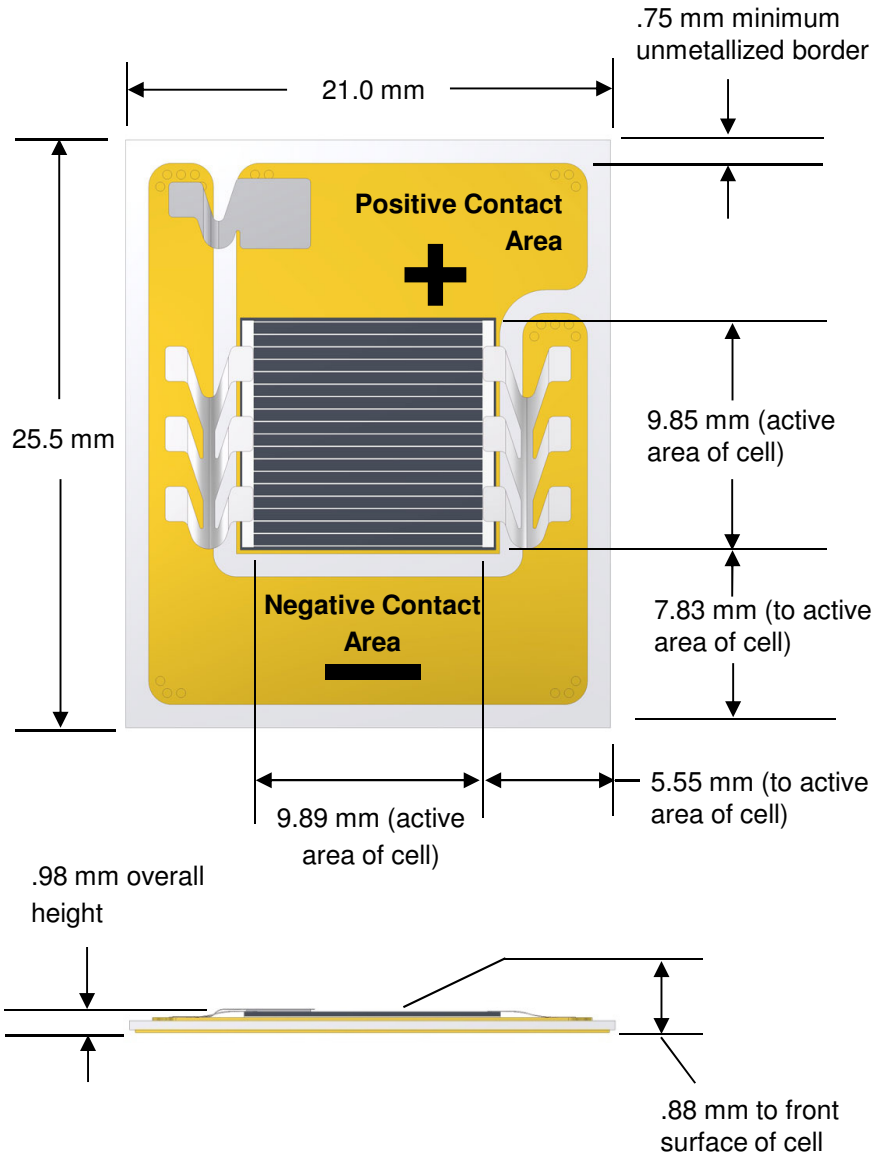
Cell	*CDO 100, C3MJ Typical performance efficiency: 38.5%*
Cell aperture	*97.4 mm^2*
Ceramic Carrier	*Direct bonded copper with Au/Ni surface plating (front and back surfaces) on a Al_2O_3 substrate*
Diode	*12A Schottky*
Operating temp	*-40 ℃ to 100 ℃*
Maximum temp	*180 ℃*
Thermal resistance	*≤ 0.22 ℃/W (modeled)*

**These CCAs are considered prototypes because they have not completed Spectrolab's internal qualification process and are considered experimental.*

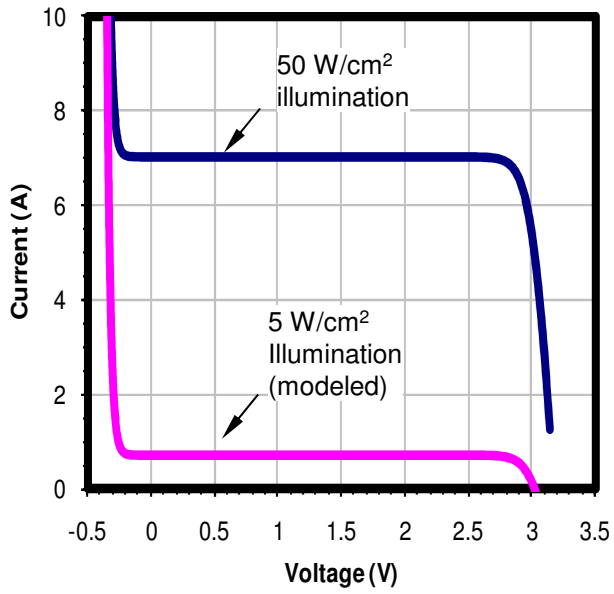


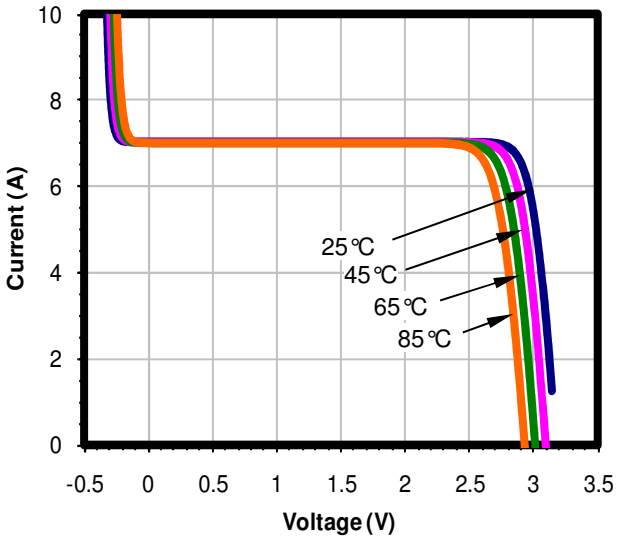


12500 Gladstone Ave., Sylmar CA 91342 (818) 365-4611
www.spectrolab.com / info@spectrolab.com



Physical Dimensions





CCA I-V Characteristics

ISO 9001 certified

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12500 Gladstone Ave., Sylmar CA 91342 (818) 365-4611
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