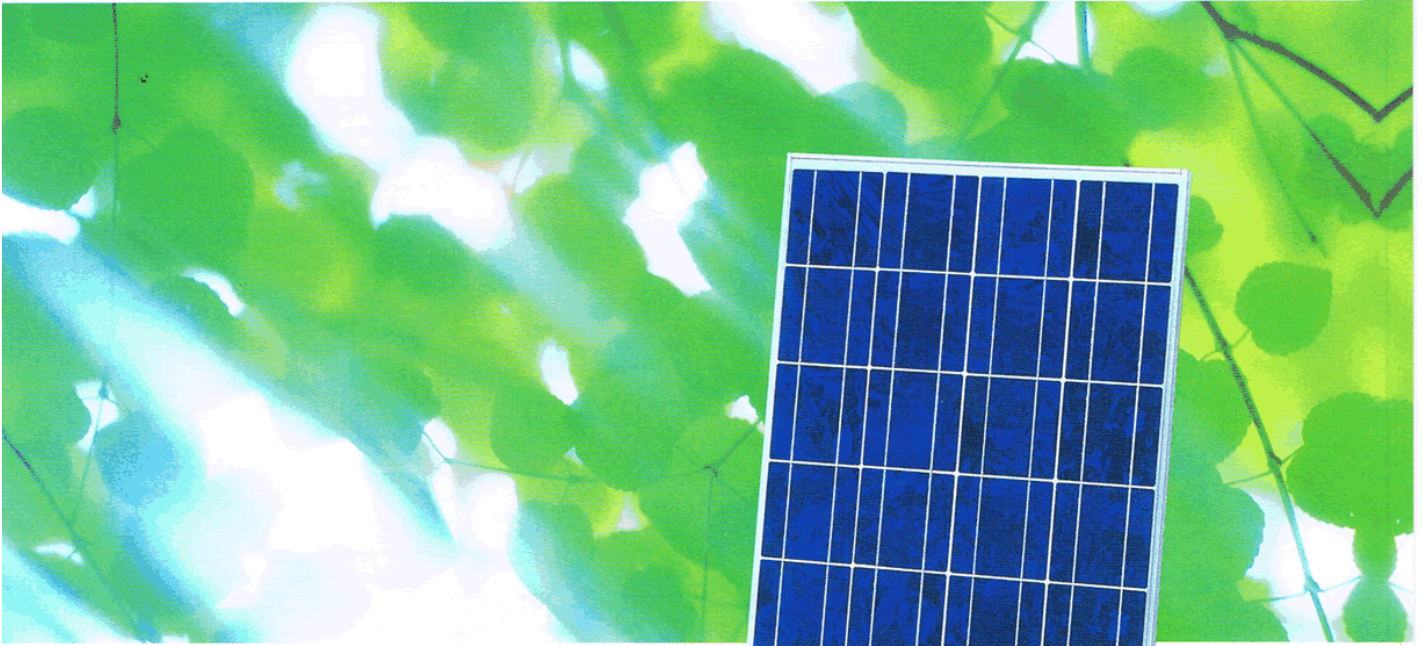
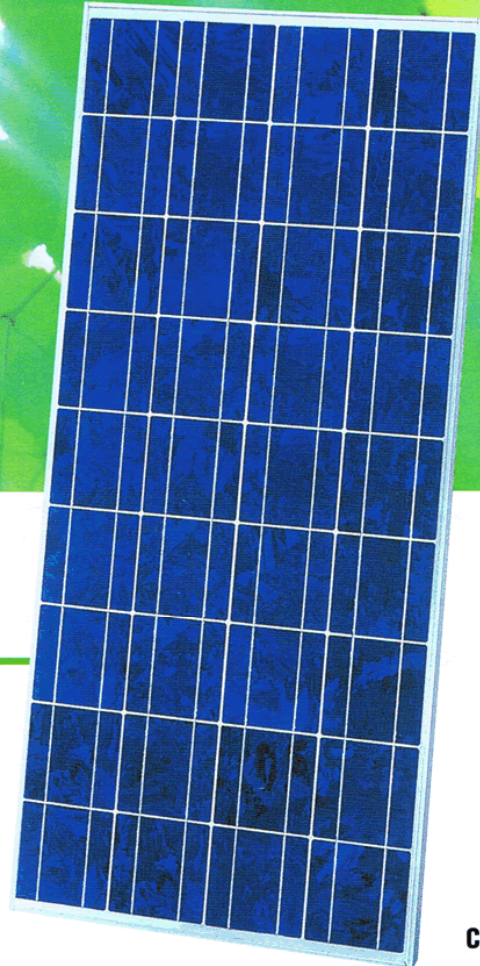


# SHARP



## NE-80EJE

Multi-Crystalline Silicon Photovoltaic Module  
with 80W Maximum Power



### GENERAL DESCRIPTION

SHARP's NE-80EJE photovoltaic module is designed for a variety of electrical power requirements. Based on the technology of crystalline silicon solar cells cultivated for over 40 years, this module has superb durability to withstand rigorous operating conditions and is suitable for stand alone

### FEATURES

- 1** High-power module (80W) using 126mm square multi-crystalline silicon solar cells with 12.4% module conversion efficiency.
- 2** Photovoltaic module with bypass diode minimizes the power drop caused by shade. Anti Reflection Coating and BSF (Back Surface Field) structure to improve cell conversion efficiency: 14.0%.
- 3** Using white tempered glass, EVA resin, and a weatherproof film along with an aluminum frame for extended outdoor use.
- 4** Nominal 12VDC output for battery charging applications
- 5** Junction box for easy electrical connection in the field

## SPECIFICATIONS

|                              |   |
|------------------------------|---|
| Cell                         | Multi-crystalline silicon solar cells, 126mm square |
| No. of cells and connections | 36 in series  |
| Application                  | DC 12V system                                       |
| Maximum system voltage       | DC 600V   |
| Series fuse rating           | 10A   |
| Maximum power                | 80.0 W (Typ.)                                       |
| Dimensions                   | 1200 × 537 × 46mm                                   |
| Weight                       | 9.5kg   |

## ABSOLUTE MAXIMUM RATINGS

| Parameters                   | Rating     | Unit |
|------------------------------|------------|------|
| Operating temperature        | -40 to +90 | °C   |
| Storage temperature          | -40 to +90 | °C   |
| Dielectric voltage withstood | 2200 max.  | V-DC |

## OUTPUT TERMINAL

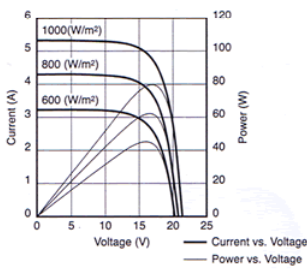
|                         |              |
|-------------------------|--------------|
| Type of output terminal | Junction Box |
|-------------------------|--------------|

## ELECTRO-OPTICAL CHARACTERISTICS

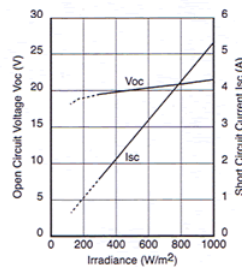
| Model                              | NE-80EJE |      |      |      | Condition                            |
|------------------------------------|----------|------|------|------|--------------------------------------|
| Parameters                         | Symbol   | Min. | Typ. | Unit |                                      |
| Open circuit voltage               | Voc      | —    | 21.3 | V    | Irradiance:<br>1000 W/m <sup>2</sup> |
| Maximum power voltage              | Vpm      | —    | 17.1 | V    |                                      |
| Short circuit current              | Isc      | —    | 5.31 | A    |                                      |
| Maximum power current              | Ipm      | —    | 4.67 | A    | Module<br>temperature:<br>25°C       |
| Maximum power                      | Pm       | 76.0 | 80.0 | W    |                                      |
| Encapsulated solar cell efficiency | $\eta_c$ | —    | 14.0 | %    |                                      |
| Module efficiency                  | $\eta_m$ | —    | 12.4 | %    |                                      |

## CHARACTERISTICS

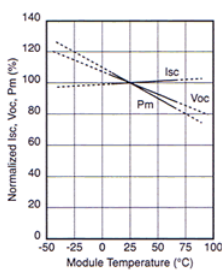
Current, Power vs. Voltage Characteristics  
(Module temperature: 25°C)



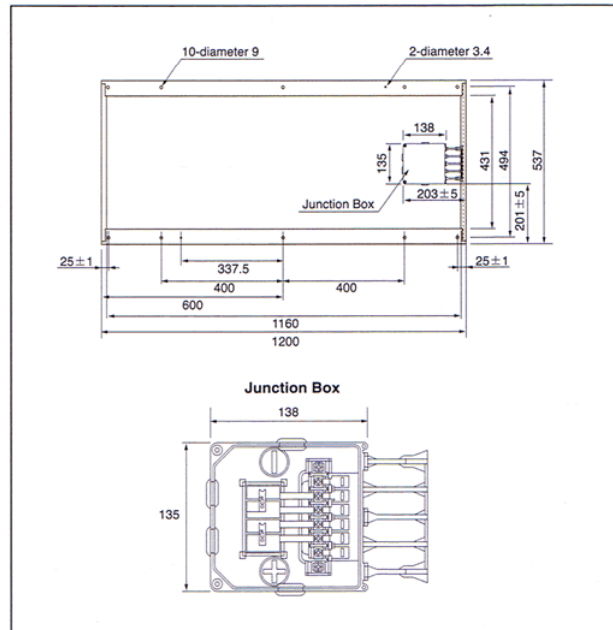
Open Circuit Voltage, Short Circuit Current  
vs. Irradiance Characteristics  
(Module temperature: 25°C)



Normalized Isc, Voc, Pm vs. Module  
Temperature Characteristics



## OUTLINE DIMENSIONS



In the absence of confirmation by specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP products shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest specification sheets before using any SHARP products.

• Specifications are subject to change without notice.

## APPLICATIONS

- Solar power stations
- Solar villages
- Villas, mountain cottages
- Pumps
- Lighting equipment
- Traffic signs
- Radio relay stations
- Beacons
- Telemeter systems
- Telecommunication systems
- Grid connected residential systems
- Office buildings