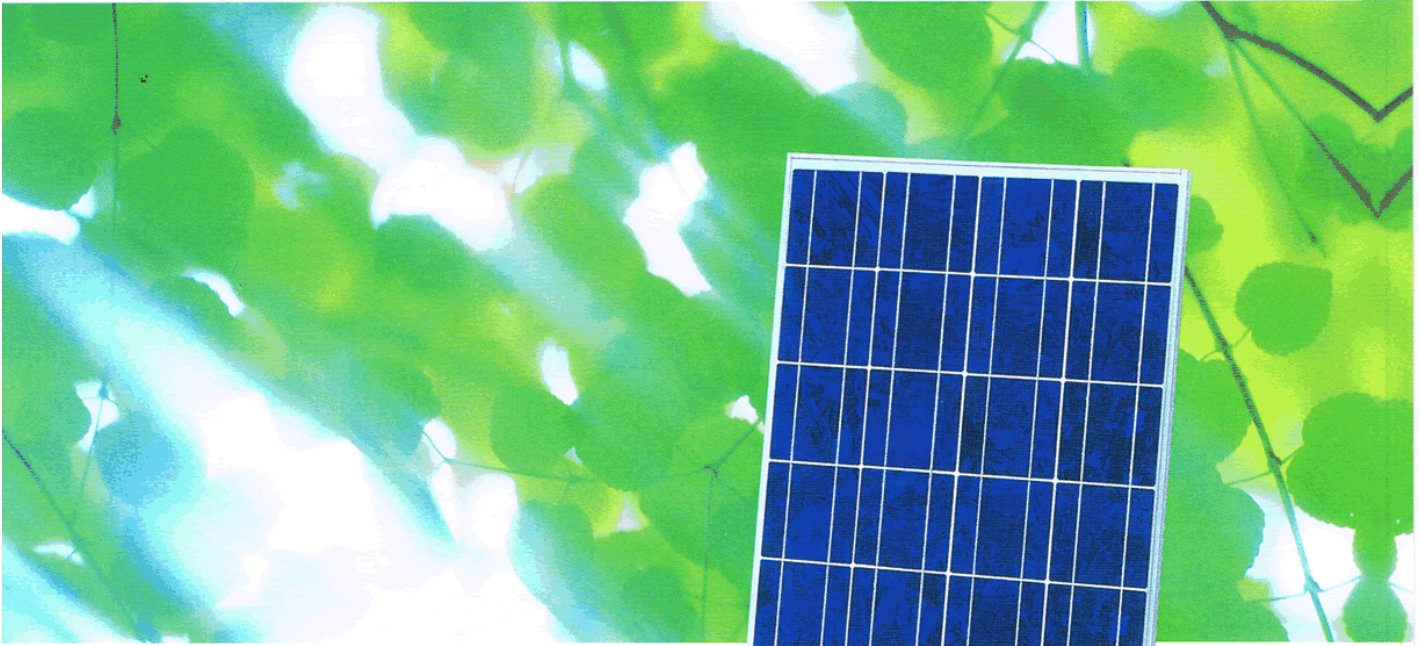
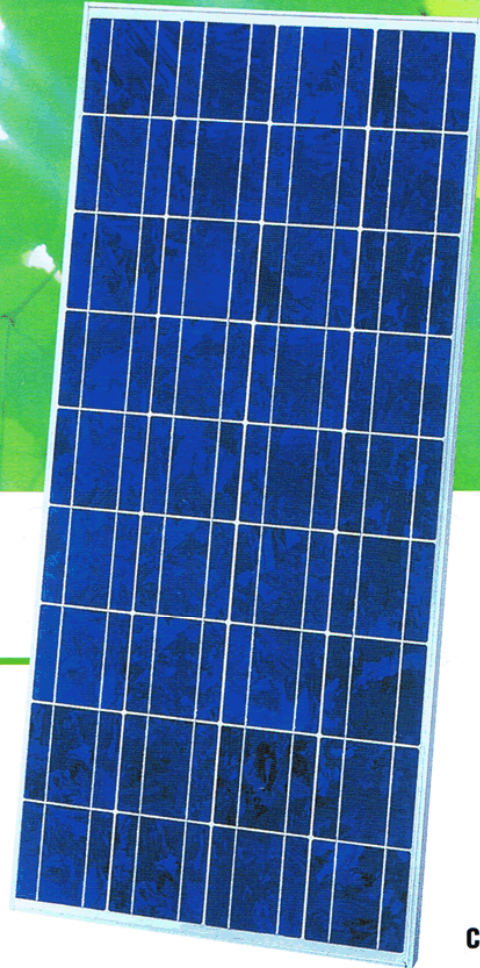


SHARP



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

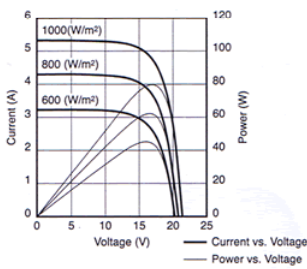
Type of output terminal	Junction Box
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ELECTRO-OPTICAL CHARACTERISTICS

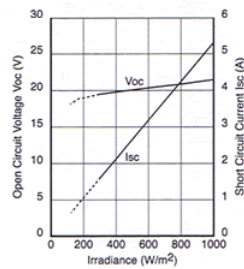
Model	NE-80EJE				Condition
Parameters	Symbol	Min.	Typ.	Unit	
Open circuit voltage	Voc	—	21.3	V	Irradiance: 1000 W/m ²
Maximum power voltage	Vpm	—	17.1	V	
Short circuit current	Isc	—	5.31	A	
Maximum power current	Ipm	—	4.67	A	Module temperature: 25°C
Maximum power	Pm	76.0	80.0	W	
Encapsulated solar cell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

CHARACTERISTICS

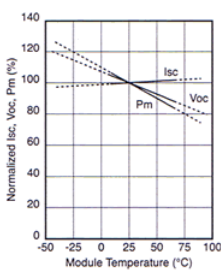
Current, Power vs. Voltage Characteristics
(Module temperature: 25°C)



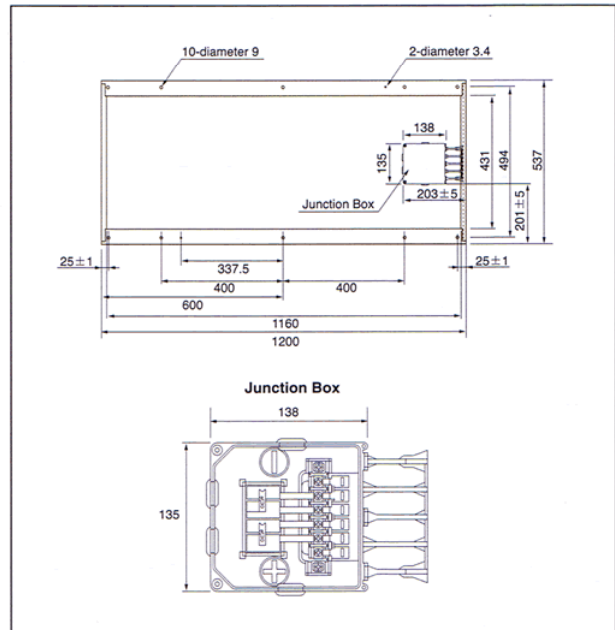
Open Circuit Voltage, Short Circuit Current
vs. Irradiance Characteristics
(Module temperature: 25°C)



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