

M10R P-TYPE PERC BI FACIAL SOLAR CELL



Rear Side

Front Side

High Conversion Efficiency: Advanced PERC (Passivated Emitter and Rear Cell) technology enhances light absorption and boosts overall cell efficiency.



M10R Rectangular Format: Optimized cell geometry increases module packing density and raises power output in high-power module designs.



Strong Reliability: Enhanced resistance to micro-cracks, PID, and LeTID ensures long-term durability and consistent performance.



Uniform Appearance: High-precision cell processing provides consistent color and aesthetic uniformity for premium module quality.



Parameters	Specification
Dimension	182.20mm*183.75mm (±0.25mm)
Diagonal	247mm±0.25mm
Thickness	180 μm ± 15 μm
Color	Dark, Medium and Light SiNx ARC
Doping	Gallium doping

Front (-)	10 Busbars, 170 ± 15 fingers, Finger spacing 1.079mm (±0.01mm)
	Busbar contact dots: Outer pads 1.2±0.2 × 1.40± 0.2mm, Inner Pads 0.70±0.2 × 0.90± 0.2mm
	Busbar centre to centre spacing: 17.30mm (±0.10mm)
Back (+)	10 Busbars, 170 ± 15 fingers
	Finger spacing 1.079mm (±0.1mm)
	Busbar width: Outer pads 2.5±0.2 × 1.50± 0.3mm, Inner Pads 1.50±0.1 × 1.50± 0.3mm
	Busbar centre to centre spacing: 17.30mm (±0.10mm)

Efficiency Range	Eff. Label	Voc (V)	Isc (A)	FF (%)	Pmpp (W)	Vmpp (V)	Impp (A)
23.60-23.70%	23.60%	0.700	13.64	82.35	7.87	0.609	12.900
23.50-23.60%	23.50%	0.699	13.60	82.31	7.83	0.607	12.890
23.40-23.50%	23.40%	0.697	13.59	82.29	7.80	0.605	12.880
23.30-23.40%	23.30%	0.695	13.58	82.27	7.77	0.604	12.850
23.20-23.30%	23.20%	0.693	13.56	82.19	7.73	0.601	12.840
23.10-23.20%	23.10%	0.691	13.54	82.15	7.70	0.599	12.830
23.00-23.10%	23.00%	0.689	13.53	82.12	7.67	0.597	12.826
22.90-23.00%	22.90%	0.687	13.51	82.09	7.63	0.594	12.822
22.80-22.90%	22.80%	0.686	13.49	82.06	7.60	0.592	12.818
22.70-22.80%	22.70%	0.684	13.47	82.03	7.57	0.596	12.808
22.60-22.70%	22.60%	0.682	13.45	82.00	7.53	0.588	12.793
22.50-22.60%	22.50%	0.680	13.43	81.97	7.50	0.586	12.783

VOC	-0.2732±0.0068 %/K
ISC	+0.0418±0.0039 %/K
Pmax	-0.3337±0.0085 %/K

Light Intensity	1000±5W/m ²
Air Mass	1.5
Temperature	25±2°C

Technical drawing of a square plate with a grid of holes. The plate has a nominal size of 180.80 x 180.80 mm. It features a grid of 12x12 holes, each with a diameter of 0.080 mm. The holes are spaced at 14.2372 mm. The plate has rounded corners with a radius of 0.035 mm. The drawing includes various dimension lines and labels for hole diameter, spacing, and corner radius.

Technical drawing of a rectangular plate with dimensions and tolerances. The drawing shows a top view of the plate with a grid of holes. The overall dimensions are 240 mm in height and 182.20 mm in width. The plate has a thickness of 1.5 mm. The grid of holes is defined by dimensions: 182.20 mm, 180.80 mm, 130.45 mm, and 13.25 mm. The holes are arranged in a grid with a pitch of 13.25 mm. The drawing includes a section line A-A and a section view A-A' showing the internal structure of the plate. The section view shows a central core with a diameter of 1.5 mm and a thickness of 1.5 mm. The drawing also includes a dimension of 182.35 mm for the height of the plate and 142.43 mm for the height of the central core. The drawing is labeled with '02A' in the top right corner.

The graph shows the relationship between voltage, current, and power for a solar cell. The x-axis represents voltage in mV, ranging from 0 to 700. The left y-axis represents current in Amperes (A), ranging from 0 to 15. The right y-axis represents power in Watts (W), ranging from 0 to 8. The blue curve (current) starts at approximately 14 A and remains nearly constant until about 550 mV, after which it drops sharply to 0 A at 700 mV. The red curve (power) starts at 0 W, increases to a maximum of about 7.5 W at approximately 600 mV, and then drops to 0 W at 700 mV.

Peel force on the front side	> 1N
Peel force on the back side	> 1N



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