

Monocrystalline Cells

PERC Tech



Model: NBM82CP10B

Dimension: 182 mm x 182 mm \pm 0.25 mm

Thickness: 160 μ m \pm 20 μ m, diameter 247 \pm 0.5mm

Front (-): Silicon oxide + blue silicon nitride compound anti-reflection coating (PID Free) ; The front side is a half-cut design; The busbar head is a large double fork, and the pads of the busbar are intermittently stepped. The size of the head pad is 1.2 ± 0.15 mm * 1.3 ± 0.15 mm, and the middle pad of the busbar size is 0.8 ± 0.15 mm* 1 ± 0.15 mm.

Back (+): Passivated layer (AlOx and SiNx) and Rear Contact (Al); the rear electrode is composed of 10 roots rear compound busbar and 160 roots rear Al fingers. The composite busbar is locally narrowed, and the width is 1.5 ± 0.3 mm and 1.0 ± 0.3 mm, respectively. 8 sections 1.45 ± 0.3 mm silver anode, no laser pattern under the rear electrode. Silver electrode has round head, and silver electrode is 1.5 ± 0.6 mm hollow at both ends.

Temperature Coefficients

Current Temperature Coefficient	α (Isca)	0.040 %/ $^{\circ}$ C
Voltage Temperature Coefficient	β (Voc)	-0.31 %/ $^{\circ}$ C
Power Temperature Coefficient	γ (Pmax)	-0.41 %/ $^{\circ}$ C

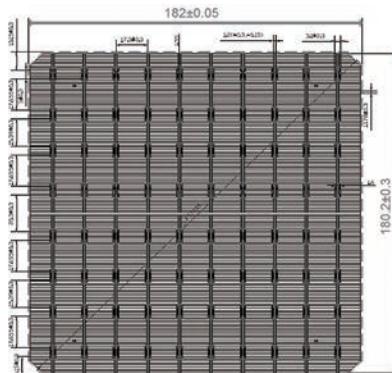
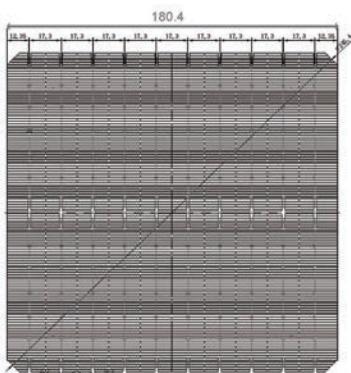
*Standard test condition; AM 1.5, 1000W/m², 25 $^{\circ}$ C

Electrical Characteristics

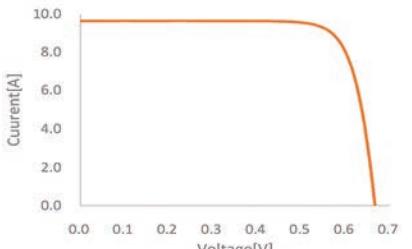
No	Efficiency (%)	Pmpp (W)	Umpp (V)	Impp (A)	Voc (V)	Isc (A)
01	23.20	7.65	0.605	12.645	0.6869	13.380
02	23.10	7.62	0.603	12.637	0.6861	13.363
03	23.00	7.59	0.601	12.629	0.6853	13.349
04	22.90	7.56	0.599	12.621	0.6846	13.334
05	22.80	7.53	0.597	12.619	0.6837	13.316
06	22.70	7.49	0.595	12.584	0.6830	13.300
07	22.60	7.46	0.593	12.581	0.6822	13.285
08	22.50	7.43	0.591	12.578	0.6813	13.281
09	22.40	7.40	0.589	12.564	0.6801	13.274
10	22.30	7.36	0.587	12.538	0.6781	13.269
11	22.20	7.33	0.585	12.537	0.6765	13.257
12	22.10	7.30	0.583	12.524	0.6750	13.249
13	22.00	7.26	0.580	12.510	0.6738	13.240

*Data under standard testing conditions (STC): 1000w/m², AM1.5, 25 $^{\circ}$ C, efficiency tolerance; average +3%/-0.1% absolute.

Conductor Patterns (unit: mm)

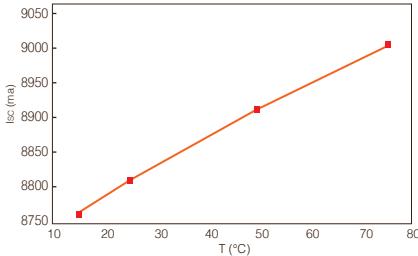


Typical IV Curve

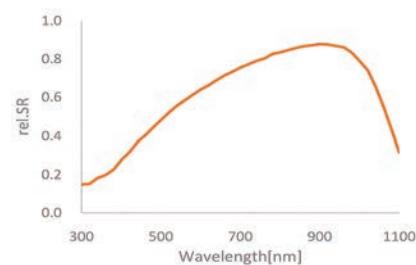


Calculated Temperature Coefficients

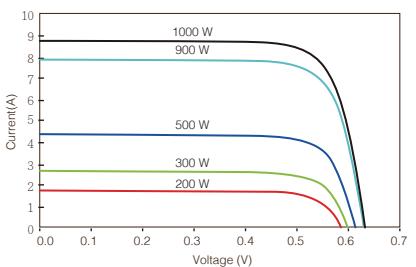
$$\begin{aligned} \text{Short Circuit Current } & \text{TK(Isca)} = (4.27 \pm 0.57) \text{mA/K} \\ & \text{TK(Isca)} = (0.0484 \pm 0.0065) \%/\text{K} \end{aligned}$$



Typical Spectral Response



Typical Current-Voltage Curve



Package: Typical package for one carton contains 1,200 cells. The cells are sealed in cell box every 100 PCs.

* The datasheet is for informational purposes only and subject to change without prior notice.