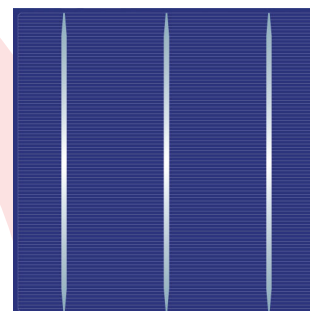


TS Solartech Cell 3BB 6" Multi-Crystalline Solar Cell

World class high performance multicrystalline solar cells in the market. Applying 3 busbar layout design improves current collection. Thin fingers on the front side and discontinuous busbar on the back side increase the cell efficiency for better performance. Also, the discontinuous busbar reduces the amount of lead/silver paste, and thus help to protect the environment.

Physical characteristics

Dimensions	: 156 x 156mm± 0.5mm
Thickness	: 200 µm ± 20 µm (Wafer thickness)
Front	: Silver Busbars / Silicon Nitride anti-reflective coating
Back	: Silver /AluminumBusbars; Full-surface aluminum BSF



Features

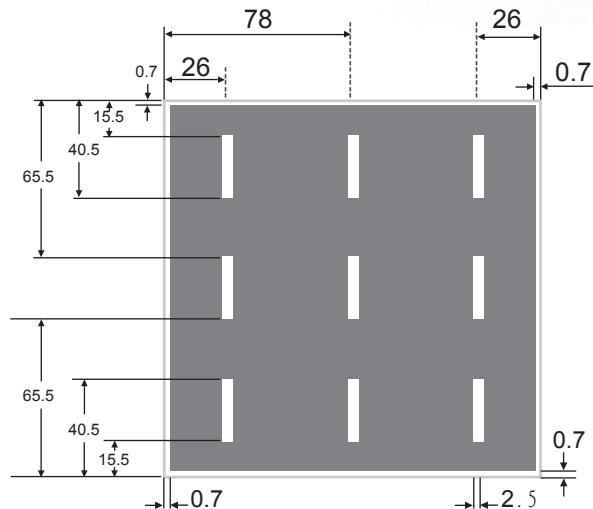
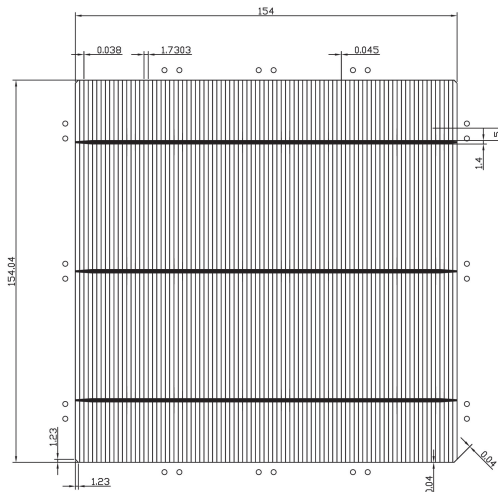
1. High Conversion efficiency.
2. Uniform SiN coating without residual dark spot.
3. Precise printing and superior silver contact to ensure easy automatic soldering and tight contact.
4. Low Breakage rate by using high quality and stable wafers.
5. 100% screened for reverse current and shunt resistance.
6. PID free solar cells.

Electrical Characteristics

Efficiency (%)	Avg. Pmpp (W)	Voc (V)	Isc (A)	Vmpp (V)	Impp(A)
18.10	4.4048	0.635	8.68	0.541	8.15
18.00	4.3805	0.633	8.68	0.539	8.14
17.90	4.3561	0.632	8.67	0.538	8.12
17.80	4.3318	0.631	8.65	0.537	8.09
17.70	4.3075	0.629	8.61	0.535	8.06
17.60	4.2831	0.629	8.61	0.531	8.06
17.40	4.2345	0.633	8.57	0.524	8.06
17.20	4.1858	0.631	8.51	0.522	8.00
17.00	4.1371	0.622	8.54	0.526	7.85
16.80	4.0884	0.620	8.57	0.516	7.92
16.60	4.0398	0.615	8.35	0.525	7.69
16.40	3.9911	0.615	8.29	0.513	7.77
16.20	3.9424	0.612	8.22	0.512	7.69
16.00	3.8938	0.615	8.11	0.508	7.65

Note: The statements made herein are based on our research and the research of others, and believed to be accurate. No guarantee of their accuracy is made, however, and the products discussed are sold without warranty, expressed or implied, including warranty of merchantability and fitness for use of this material, upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes. The user assumes all risks of using or handling, whether or not in accordance with any statements of the supplier. Supplier's liability, if any, for any action arising out of the material being supplied shall be limited to replacement of material. Statements concerning the possible use of these products are not intended as recommendations to use these products in infringement of any patent.

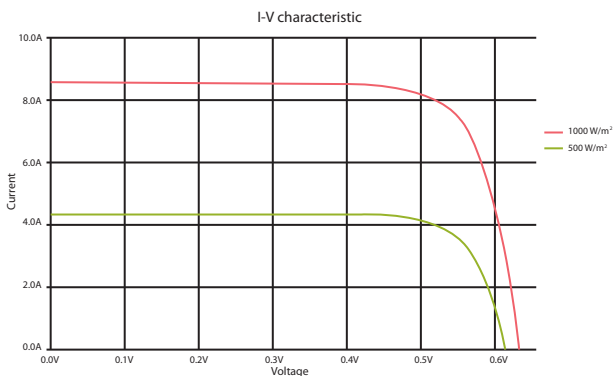
TS Solartech Cell 3BB Dimensions



Temperature coefficients

Voltage (Voc)	:	-0.35% /°C
Current (Isc)	:	+0.052% /°C
Power (Pmax)	:	-0.46% /°C

I-V Curve



Intensity Dependence

Intensity [W/m²]	Isc*	Voc*	Pmpp
1000	1.0	1.000	1.000
900	0.9	0.996	0.898
800	0.8	0.990	0.795
500	0.5	0.969	0.487
300	0.3	0.945	0.283
200	0.2	0.925	0.183

*Ratio of Voc(Isc) at reduced intensity to Voc(Isc) at 1000 W/m²

Soldering Ability

Peel Strength: >1.0N/mm (Pull soldered ribbon form busbar in 4 mm/s of 90°)



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