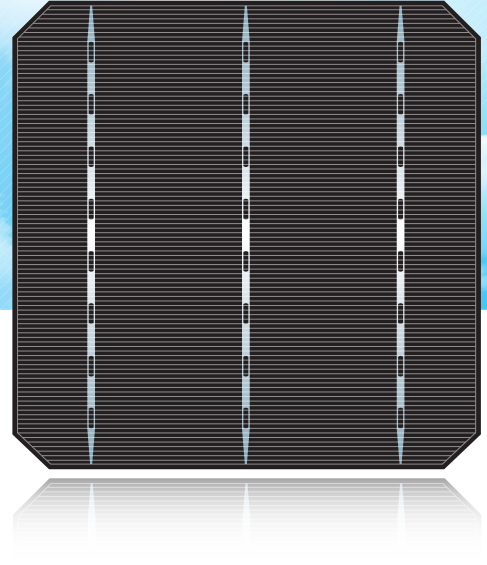


SAPPHIRE

S-156-3 ver. H

6" Monocrystalline Solar Cell

/ Preliminary



Features

- High-efficiency solar cells with an anisotropically etched surface
- Silicon nitride anti-reflection coating
- Silver front contact bars and full surface aluminum back contact field

Performance and Quality

- Proper handling from incoming inspection through production, outgoing inspection and packaging
- 100% checked for reverse current and visual appearance
- Calibrated against Fraunhofer ISE
- RoHS compliance
- **100% PID Resistance**

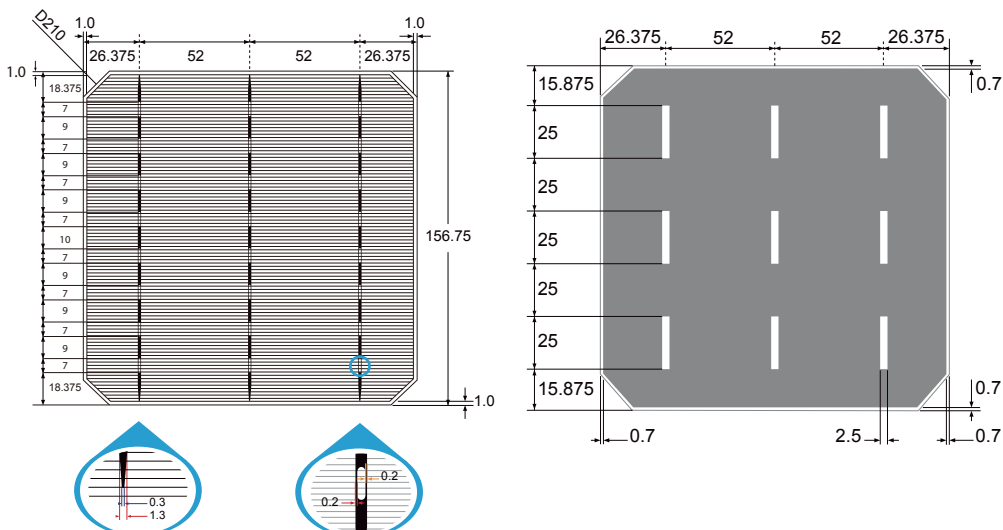
Packaging

- Minimize the risk of broken cells with special design
- Label with product information

Cell Layout

Physical Characteristics

Dimension	156.75 mm x 156.75 ± 0.5 mm
Diagonal	210 mm ± 0.5 mm
Thickness (si)	180 μm - 20 / + 30 μm 200 μm ± 30 μm
Front Side (-)	Silicon nitride anti-reflection coating 1.3 mm silver busbar
Back Side (+)	Full surface aluminum back surface field 2.5 mm (silver) discontinuous soldering pads



S-156-3 ver. H / 6" Monocrystalline Solar Cell

Electrical Characteristics (Preliminary)

Class M-156	Efficiency Range (%)	Rated Power (Wp)	*Maximum Power Current (A)	*Short Circuit Current (A)	*Maximum Power Voltage (V)	*Open Circuit Voltage (V)
201	20.1~20.2	4.911	9.117	9.701	0.541	0.651
202	20.2~20.3	4.935	9.127	9.706	0.543	0.652
203	20.3~20.4	4.960	9.138	9.711	0.545	0.653
204	20.4~20.5	4.984	9.148	9.715	0.547	0.654
205	20.5~20.6	5.009	9.158	9.720	0.548	0.655
206	20.6~20.7	5.033	9.170	9.725	0.550	0.656
207	20.7~20.8	5.075	9.179	9.727	0.552	0.657
208	20.8~20.9	5.082	9.189	9.732	0.554	0.658
209	20.9~21.0	5.106	9.199	9.736	0.556	0.659

Test condition: 1000 W / m², AM 1.5, 25 °C Power measuring tolerance: ± 1.5 % rel. *Data for reference only.

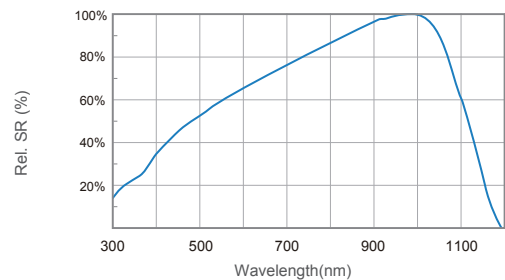
Temperature coefficients

Current (%/K)	0.0396
Voltage (%/K)	-0.3081
Power (%/K)	-0.4000

Light Intensity Dependence

Intensity [W/m ²]	V _{mpp}	I _{mpp}
1000	1.000	1.000
900	0.998	0.896
500	0.976	0.498
300	0.952	0.297
200	0.934	0.196

Spectral Response



IV-Curve

