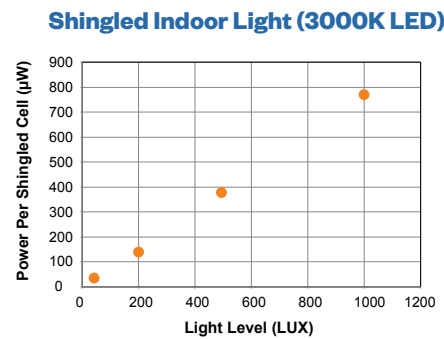
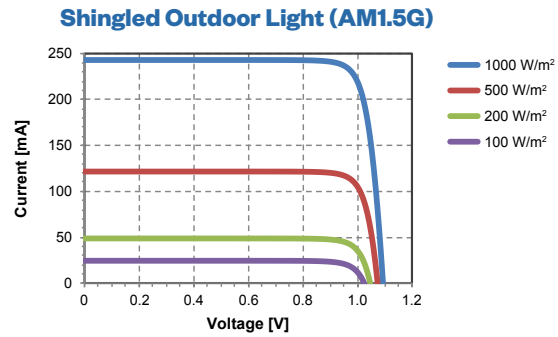
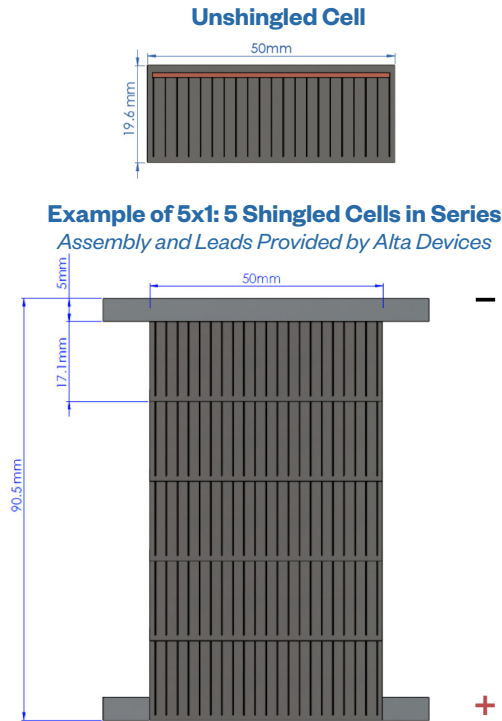


Technology Brief - Single Junction (Preliminary)

This technology performance brief is for the single junction Gallium Arsenide photovoltaic product currently produced by Alta Devices. Cell-to-cell interconnect and cover lamination can be provided at customer's request.



Mechanical Characteristics

Unshingled Area	mm	50 x 19.6
Shingled Area	mm	50 x 17.1
Density (Unshingled)	g/m ²	114
Weight per cell (Unshingled)	g	0.112
Radius of Curvature	cm	>5

Temperature Coefficients

Open Circuit Voltage (Voc)	[%/°C]	-0.19
Short Circuit Current (Isc)	[%/°C]	+0.08
Max Power Voltage (Vmp)	[%/°C]	-0.17
Max Power Current (Imp)	[%/°C]	+0.08
Power (Pmp)	[%/°C]	-0.09

Percent change per °C from 25 °C

Electrical Characteristics

		AM1.5, 1000W/m ² , 25°C	Estimated at AMO, 1366W/m ² , 25°C	Indoor Light, 3000K LED, 200 lux, 25°C	
Efficiency	[%]	26	23	--	--
Power per cell (Unshingled)	[W]	0.25	0.30	µW	152
Power per cell (Shingled)	[W]	0.22	0.26	µW	132
Power density	[W/m ²]	260	310	µW/cm ²	15
Open Circuit Voltage (Voc)	[V]	1.10	1.12	V	0.90
Max Power Voltage (Vmp)	[V]	0.97	0.97	V	0.88
Short Circuit Current (Isc)	[mA]	240	286	µA	193
Max Power Current (Imp)	[mA]	229	273	µA	150

Values correspond to shingled cells and represent optimal performance unless otherwise stated. Actual performance depends on product size and encapsulation.