

SOLAR CELL EPIWAFER

(LD) AND LIGHT-EMITTING DIODE (LED)

EPIWAFERS FOR VERTICAL CAVITY SURFACE EMITTING LASER DIODE (VCSEL)

SOLAR CELL EPIWAFERS

Descriptions

2" and 3" epiwafer by MOVPE are available for Dual Junction (DJ) solar cell epiwafer. A GaAs based Solar Cell is benefit on its high conversion efficiency and reliability compared to Silicon based solar cell.

Figure 1 shows the typical structure of DJ InGaP/GaAs solar cell epiwafer.



FIG.1

Wafer Characterization

Figure 2 shows the typical DCXD rocking curve. The lattice mismatch can be controlled within ± 1000 ppm.

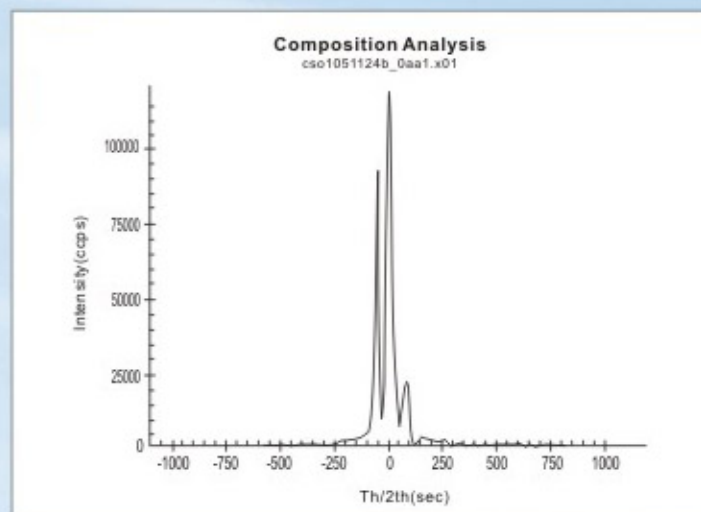


FIG.2

SOLAR CELL EPIWAFER



w w w . l m o c . c o m . t w

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Wafer Characterization

Figure 3 shows the typical IV characteristic of of DJ InGaP/GaAs solar cell.

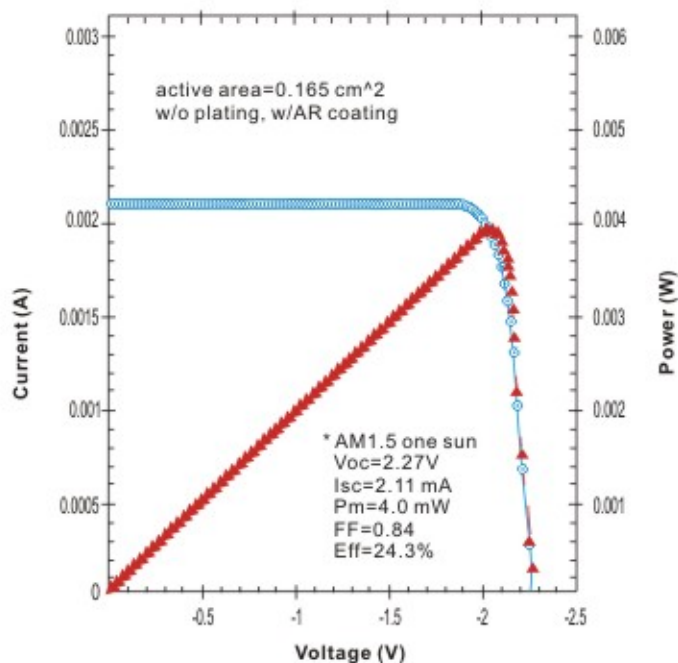


FIG.3

Typical Device Performance

Parameter	Typical
Isc (A)	~0.002
Voc(V)	~2.2
Eff(%)	~25%
(AM1.5 one sun)	