

# 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  $\pm 1000$ ppm.

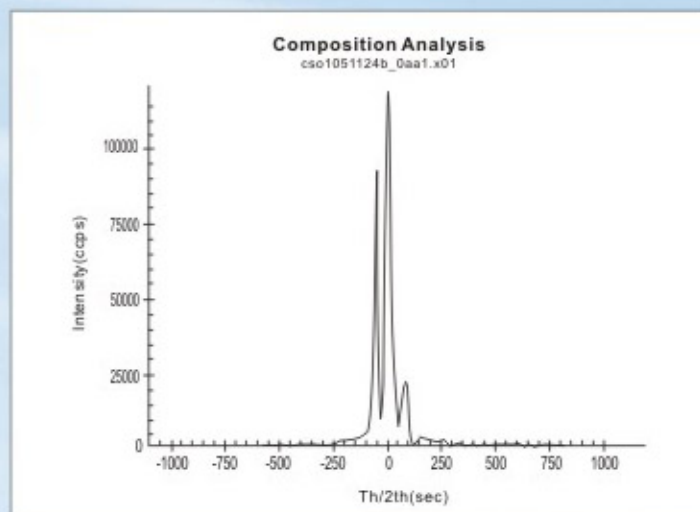


FIG.2

# SOLAR CELL EPIWAFER



www.lmcc.com.tw

SOLAR CELL EPIWAFERS

## Wafer Characterization

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

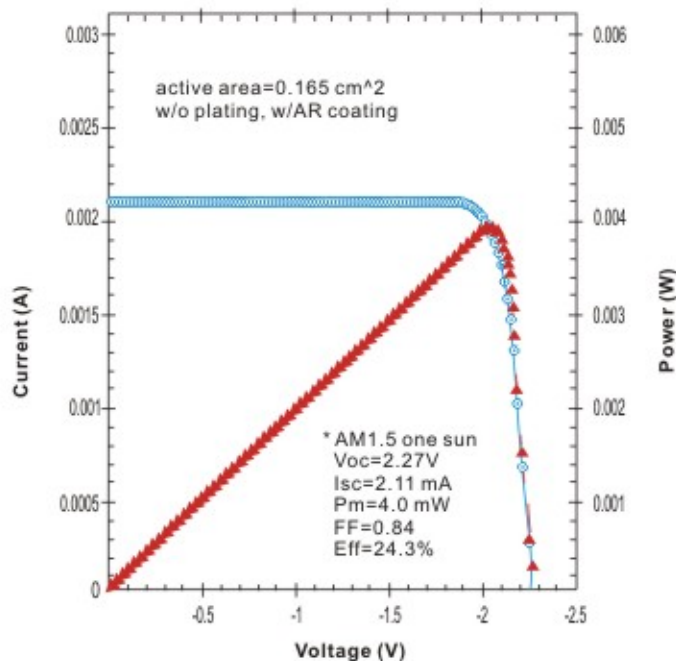


FIG.3

## Typical Device Performance

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