
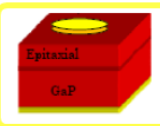



# Shin-Etsu Handotai Compound Semiconductor Materials & LED

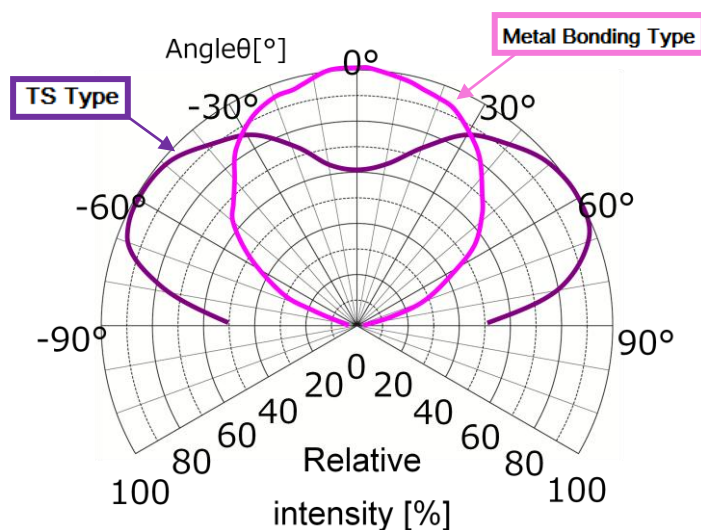
Shin-Etsu Handotai supplies epitaxial wafers for LED and LED chips

## Structure of AlGaInP MO products

Preparing several type of LED Chips meeting your request.

Structure · Type			Material of Sub	Electrode placement	Wiring	Characteristics
	Absorbing Substrate	AS-Type	GaAs	P-up Anode is the upper part	One Wire	For the uses that high brightness is not necessary
	Transparent Substrate	TS·TM-Type ATS-Type	GaP	P-up Anode is the upper part		Wide light distribution properties Good performance against Electrostatic Discharge
	Metal Bonding	MR-Type Metal Reflector BR-Type Bonding Reflector	Si	P-UP Anode is the upper part N-UP Cathode is the upper part		High directivity LED

## Light Distribution Comparison



Sample of typical data graph

## Electrode placement of Three Types



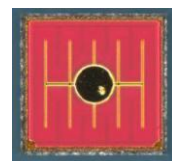
### BR-A series

- \*High Brightness or High power
- \*Good cost performance
- \*For general purpose



### BR-B series

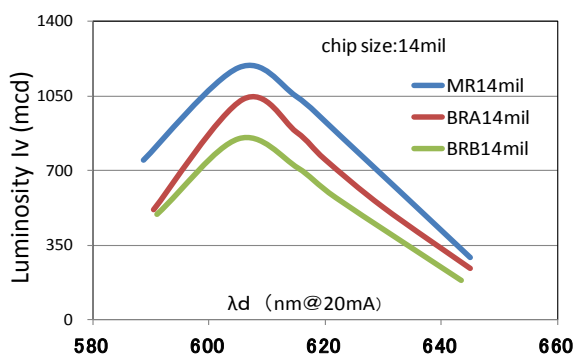
- \*Low VF
- \*High current specification



### MR series (P-up)

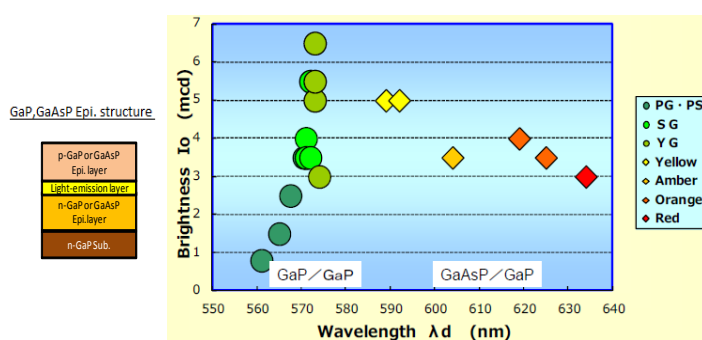
- \*High Brightness or High power

## Luminosity Comparison between BR and MR



Sample of typical data graph

## Wavelength and Brightness of GaP products



Sample of typical data graph