150W 905nm High Power Diode Laser Chip

With the rapid development of lidar technology in mapping, exploration, UAV, service robot and other fields, the demand for lidar will maintain a rapid growth trend. In particular, with the development of unmanned driving, surveying and mapping exploration and other applications, higher requirements are put forward for the test range and accuracy of lidar, which requires higher power laser transmitting chip. Recently, our company launched a newly developed 150W 905nm pulse lidar chip.

Help customers reduce costs and improve cost performance, while also having the advantages of short delivery time and fast service response speed

Feature:

High output power at 150W, 905nm central wavelength

40% power conversion efficiency

Pulse width at 200ns, 5000Hz repetition frequency

High brightness and high reliability and stability

Quick delivery 1-2 working weeks

Application: Autonomous Driving Lidar, Semiconductors for high-power diode lasers in direct material processing, for heating or lighting.

Data Sheet

Item No: LC905DL150

Item Name: 150W 905nm High Power Diode Laser Chip

Optical	Min	Typ	Max
Central Wavelength	890nm	905nm	920nm
Output Power		150W	
Working Mode		QCW	
Spectrum Width		5nm	
Emitter Width		500um	
Chip Width		400um	
Cavity Length		750um	
Thickness		150um	
Fast Axis Divergence(FWHM)		30deg	
Slow Axis Divergence (FWHM)		10deg	
Polarization Mode		TE	
Slope Efficiency		4.7W/A	
Electrical			
Operating Current Iop		28A	
Threshold Current Ith		1.1A	
Operating Voltage Vop		18V	
Conversion Efficiency		40%	
Pulse Width		100um	
Duty Cycle		0.10%	
Repetition Frequency		5000Hz	
Thermal			
Operating Temperature		25	
Wavelength Temperature Coefficient		0.31nm/	

Drawing: