100W 905nm Single Emitter Diode Laser Chip

In addition to vehicle-mounted unmanned driving, the technology of lidar in the fields of surveying and mapping, exploration, as well as unmanned aerial vehicles, service robots and other fields is rapidly improving, and the demand for lidar will maintain a rapid growth trend. In particular, with the development of applications such as unmanned driving, surveying, mapping and exploration, higher requirements have been placed on the test range and accuracy of lidar. This requires higher-power laser emission chips. Our company has recently launched a newly developed 100W 905nm pulsed lidar chip.

Feature:

QCW working mode, single emitter diode laser chip

TE polarization mode, 40% power conversion efficiency

With pulse width, 4.7W/A slope efficiency

Short delivery time and fast service response speed

Application: high power pulse laser chip mainly for lidar detectors

Data Sheet:

Item No:LC905SE100

Item Name: 100W 905nm Single Emitter Diode Laser Chip

Optical	Min	Typ	Max
Central Wavelength	890nm	905nm	920nm
Output Power		100W	
Working Mode		QCW	
Spectrum Width		5nm	
Emitter Width		300um	
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		25A	34A
Threshold Current Ith		1.1A	
Operating Voltage Vop		12V	7V
Conversion Efficiency		40%	
Pulse Width		100um	
Duty Cycle		0.10%	
Repetition Frequency		5000Hz	
Thermal			
Operating Temperature		25	
Wavelength Temperature Coefficient		0.31nm/	

Drawing: