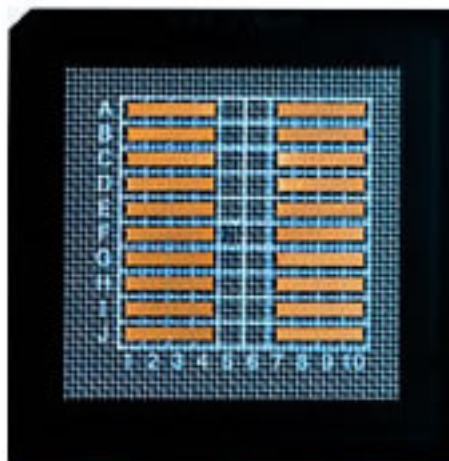


STL-LC-UMC-100-808-TE-3-2.0

## High-power Diode Laser Chips, 808nm CW 3W


**STL series chips**

**STL Series bars**
**Features:**

- High electrical-optical conversion efficiency
- Long lifetime >20000hours
- Customized products available with short lead time

**Specifications**

	Symbol	Min.	Typical	Max.	Unit
<b>Operation</b>					
Central Wavelength	$\lambda$	802	805	808	nm
Optical output power	Popt		3		W
Operation mode			CW		
Power modulation			100		%
<b>Geometrical</b>					
Number of emitters					
Emission width	W		100		um
Emitter pitch	P		500		um
Filling factor	F		75		%
Bar width	B				um
Cavity length	L	1990	2000	2010	um
Thickness	D	110	130	150	um
<b>Electro-optical parameters</b>					
Fast-axis divergence angle	$\theta_{\perp}$		36	40	Deg
Slow-axis divergence angle	$\theta_{//}$		8	10	Deg
Spectral bandwidth FWHM	$\Delta\lambda$		2	3	nm
Pulse wavelength	$\lambda$	800	803	806	nm
Slope efficiency	$\eta$	1.1	1.28		W/A
Electro-optical conversion efficiency		56	61		%
Threshold efficiency	lth		0.4	0.5	A
Operation current	Iop		2.8	3	A
Operation voltage	Vop		1.75	2	V
Wavelength shift vs. temp.	$\Delta\lambda/\Delta T$		0.28		nm/°C
Polarization			TE		
LD operation temperature		15	25	35	°C

Remark: Pulse wavelength was tested at low current, low pulse duty and short pulse width.  
Power-Current-Voltage-Efficiency

