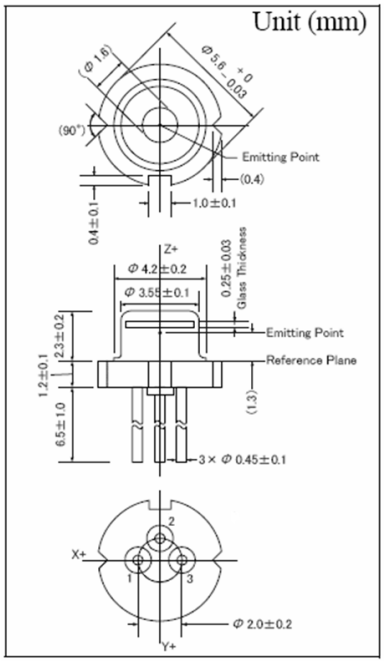
LD CW 395-430nm 50mW Laser Diodes

■ Specifications for Laser Diodes

Wavelength: 395±2nm, 400±2nm, 405±2nm, 410±2nm, 415±2nm, 420±2nm, 425±2nm, 430±2nm

Light Output Power: 50mW CW
Package Type: TO-18 (Φ 5.6mm)
No photodiode installed.

Outline Dimension

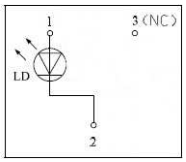


■ Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Ratings	Units
Optical Output Power	Po (CW)	50	mW
Operating Temperature	Top	+10 ~ +30	°C
Storage Temperature	Tstg	-40 ~ +80	°C

Polarization: TE
Expected Liftime: 2000h at 10mW operation
Max pulse operation: 400mW at 10kHz, 200ns
OP Time stability: < 1.5% /h ambient temp var ±2°C

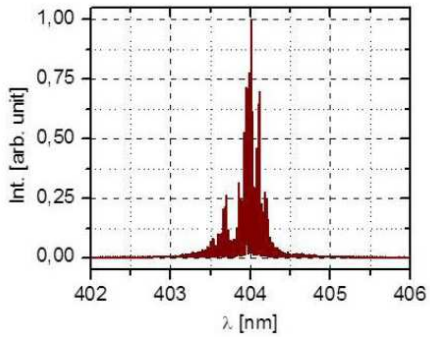
Pin Connection



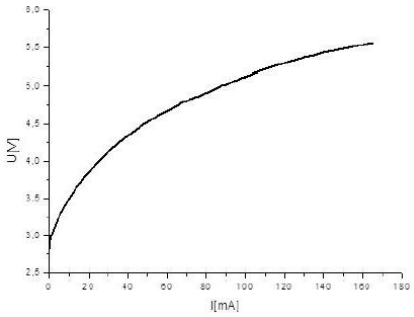
■ Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Threshold Current	Ith		40	70	100	mA
Threshold Voltage	Vth		4.5	5.0	5.5	mV
Operating Current	Iop	Po=50mW	100	120	150	mA
Operating Voltage	Vop	Po=50mW	4.8	5.2	5.9	Volts
Slope Efficiency	ŋ		0.5	0.7	1.2	mW/mA
Beam Divergence (FWHM)	θ //	Po=50mW	6	10	13	deg
	θ ⊥	Po=50mW	15	20	25	deg
Parallel Deviation Angle	Δ θ //	Po=50mW	18	-	25	deg
Perpendicular Deviation Angle	Δ θ ⊥	Po=50mW	8	-	14	deg

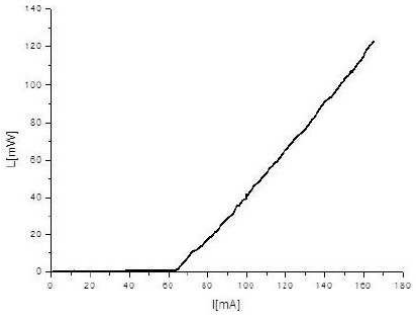
LD CW 395-430nm 50mW – TYPICAL CHARACTERISTICS:



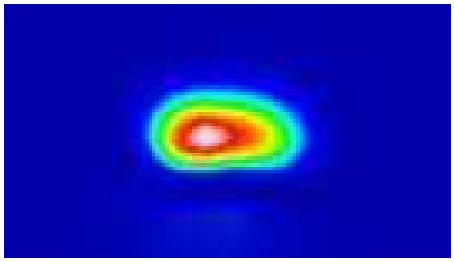
Light Spectrum – wavelength 404±0.5 nm



Current-Voltage Characteristic



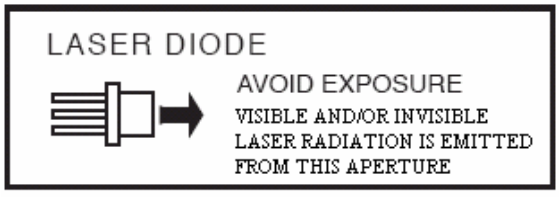
Light-Current Characteristic



Near Field Pattern
Diameters 1.3 x 2 mm at the distance of 20cm from the module objective.

Laser diode LD CW 395-430nm 50mW complies with the UE RoHS 2002/95/WE directive.

Attention: Avoid looking directly into beam, use always safety goggles. Lasers may be dangerous for your eyes.



Safety standards: IEC 60825-1 and 21 CFR 1040. 10 – 1040.11