ROITHNER LASERTECHNIK

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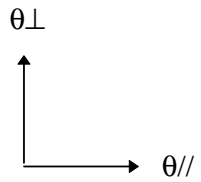
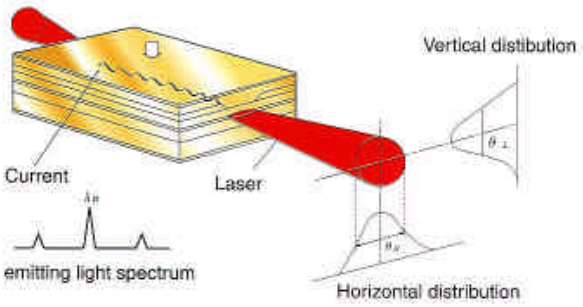
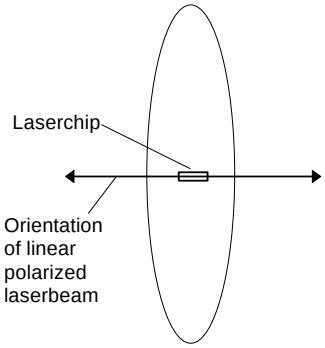
CHIP 6505L TECHNICAL DATA

Visible Wavelength Laserdiodechip

Structure: **AlGaInP, index guided**
Lasing wavelength: **650 nm typ.**
Max. optical power: **5 mW**
Chipsize: **300 x 300 x 102 µm**[L x W x H] **Tolerances +/- 5 µm**
Cavity length: **300 µm +/- 5 µm**
Emitting Point: **about 2 µm down from top line**
Gold coated on upper and lower side
Low threshold current, low operating current







Maximum Ratings (Tc=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P_o	5	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operation Temperature	T_C	-10 .. +40	°C
Storage Temperature	T_{STG}	-40 .. +85	°C

Optical-Electrical Characteristics (Tc = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Optical Output Power	P_o	kink free			5	mW
Threshold Current	I_{th}			40	70	mA
Operation Current	I_{op}	P_o =5mW		50	80	mA
Operating Voltage	V_{op}	P_o =5mW		2.2	3.0	V
Lasing Wavelength	λ	P_o =5mW	640	650	665	nm
Beam Divergence	θ//	P_o =5mW	5	8	12	°
Beam Divergence	θ⊥	P_o =5mW	24	28	35	°
Astigmatism	A_s	P_o =5mW, NA=0.4		10		µm