

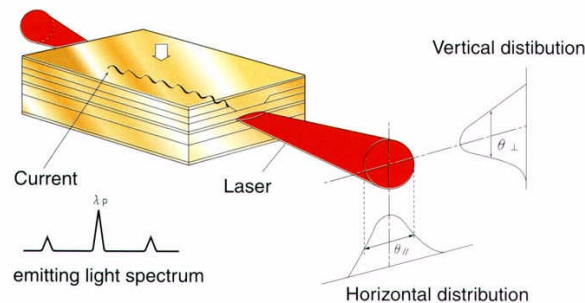
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CHIP 7805L TECHNICAL DATA

Infrared Wavelength Laserdiodechip

Structure: **index guided, single transverse mode**
 Lasing wavelength: **785 nm typ.**
 Max. optical power: **5 mW**
 Chipsize: **400 x 300 x 90 μm [L x W x H] +/- 5 μm**
 Cavity length: **400 μm +/- 5 μm**
 Emitting Point Height: **2.5 μm from bottom soldering line**
 Coating: **Au coated on upper and lower side**
Low threshold current, low operating current, low noise



Absolute Maximum Ratings (Tc=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P_o	5	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
Operation Temperature	T_c	-10 .. +50	°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
Emitting Aperture	A	$P_o = 5\text{mW}$		1 x 3		μm^2
Threshold Current	I_{th}			35	40	mA
Operation Current	I_{op}	$P_o = 5\text{mW}$		45	50	mA
Operating Voltage	V_{op}	$P_o = 5\text{mW}$		2.0	2.3	V
Lasing Wavelength	λ_p	$P_o = 5\text{mW}$	775	785	790	nm
Beam Divergence	$\theta_{//}$	$P_o = 5\text{mW}$		10		°
Beam Divergence	θ_{\perp}	$P_o = 5\text{mW}$		34		°
Astigmatism	As	$P_o = 5\text{mW}$		5		μm