ROITHNER LASERTECHNIK

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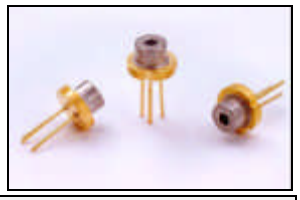
S6305MG TECHNICAL DATA

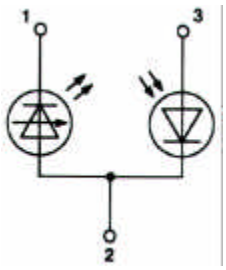


Visible Wavelength Laserdiode

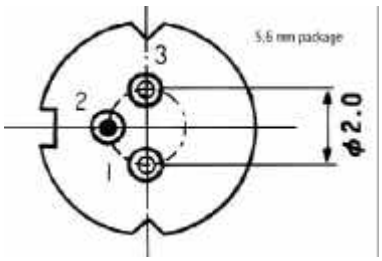
Structure: **InGaAlP, index guided single transverse mode**
Lasing wavelength: **635 nm typ.**
Output power: **5 mW, CW**
Package: **5.6 mm, TO-18**

NOTE!
LASERDIODE
MUST BE COOLED!

PIN CONNECTION:



1) Laser diode cathode
2) Laser diode anode and photodiode cathode
3) Photodiode anode



Maximum Ratings (Tc=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P_o	7	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operation Case 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
Threshold Current	I_{th}	cw		35	45	mA
Operation Current	I_{op}	P_o = 5 mW		45	60	mA
Operating Voltage	V_{op}	P_o = 5 mW	2.1	2.3	2.6	V
Lasing Wavelength	λ_p	P_o = 5 mW	630	635	640	nm
Beam Divergence	$\theta_{//}$	P_o = 5 mW	6	7.5	9	°
Beam Divergence	$\theta_{\perp}$	P_o = 5 mW	32	38	42	°
Slope Efficiency	η	P_o = 3 mW	0.35	0.55	0.8	mW/mA
Monitor Current	I_m	P_o = 5 mW	100	250	650	µA
Deviation Angle	$\Delta\theta_{//}$	P_o = 5 mW			±5	°
Deviation Angle	$\Delta\theta_{\perp}$	P_o = 5 mW			±5	°
Emission Point Accuracy	Δx	-			±80	µm
	Δy	-			±80	µm
	Δz	-			±80	µm