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S808500G TECHNICAL DATA

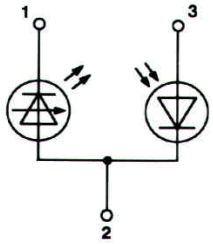
High Power Infrared Laserdiode

Structure: **InGaAs, active MQW**
Lasing wavelength: **808 nm typ., multimode**
Output power: **500 mW, cw**
Package: **9 mm**

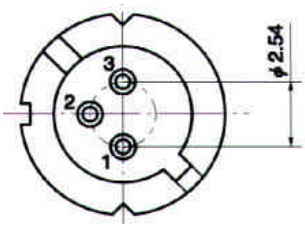
NOTE!
LASERDIODE
MUST BE COOLED!

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC SENSITIVE DEVICE

PIN CONNECTION:



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



Absolute Maximum Ratings (Tc = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P_o	500	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operating 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 operation		130	165	mA
Operation Current	I_{op}	P_o = 500 mW		650	720	mA
Operation Voltage	V_{op}	P_o = 500 mW		1.9	2.4	V
Slope Efficiency	η	cw operation	0.9	1	1.09	W/A
Lasing Wavelength	λ	P_o = 500 mW	803	808	813	nm
Beam Divergence	$\theta_{//}$	P_o = 500 mW	6.5	7.5	9	°
Beam Divergence	$\theta_{\perp}$	P_o = 500 mW	35	38	45	°
Lasing Aperture	A	P_o = 500 mW		50x1		µm²
Monitor Current	I_m	P_o = 500 mW	1	2.5	4	mA