

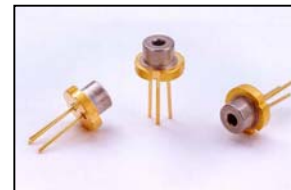
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S808200MNP TECHNICAL DATA



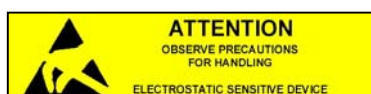
High Power Infrared Laser Diode

Structure: multi mode, 30 x 1 μm^2 emitting aperture

Lasing wavelength: typ. 806 nm

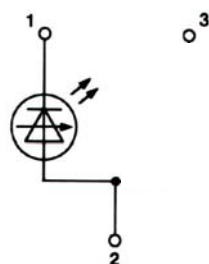
Output power: 200 mW cw

Package: 5.6 mm, TO-18

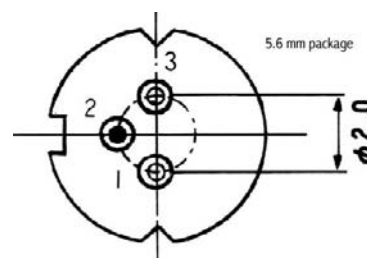


NOTE!
LASERDIODE
MUST BE COOLED!

PIN CONNECTION:



- 1) Laser diode cathode
- 2) Laser diode anode
- 3) n.c.



Absolute Maximum Ratings ($T_c = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P_o	250	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operation Case Temperature	T_c	-10 .. +40	$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 .. +85	$^\circ\text{C}$

Optical-Electrical Characteristics ($T_c = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Threshold Current	I_{th}	cw	-	70	110	mA
Operation Current	I_{op}	$P_o = 200 \text{ mW}$	-	300	350	mA
Operating Voltage	V_{op}	$P_o = 200 \text{ mW}$	-	1.9	2.2	V
Lasing Wavelength	λ_p	$P_o = 200 \text{ mW}$	803	806	810	nm
Beam Divergence	$\theta_{//}$	$P_o = 200 \text{ mW}$	-	6	-	$^\circ$
Beam Divergence	θ_{\perp}	$P_o = 200 \text{ mW}$	-	32	40	$^\circ$
Parallel Deviation Angle	$\Delta\theta_{//}$	$P_o = 200 \text{ mW}$	-	-	± 3	$^\circ$
Perpendicular Deviation Angle	$\Delta\theta_{\perp}$	$P_o = 200 \text{ mW}$	-	-	± 3	$^\circ$
Emission Point Accuracy	$\Delta X, \Delta Y, \Delta Z$	-	-	± 80	-	μm
Slope Efficiency	η	63 mW – 190 mW	-	0.9	-	mW/mA
Monitor Current	I_m	$P_o = 200 \text{ mW}$	-	-	-	mA