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RLT8510MG TECHNICAL DATA



Infrared Laserdiode

Structure: **AlGaAs double heterostructure**

Lasing wavelength: **850 nm typ.**

Max. optical power: **10 mW**

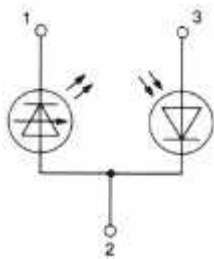
Package: **5.6 mm**

NOTE!

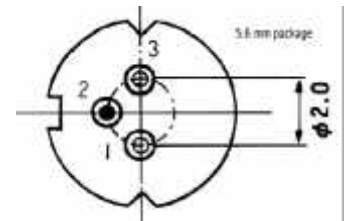
LASERDIODE
MUST BE COOLED!



PIN CONNECTION:



- 1) Laserdiode cathode
- 2) Laserdiode anode and photodiode cathode
- 3) Photodiode anode



Maximum Ratings (Tc=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P_o	10	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operating Temperature	T_{op}	-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	5	8	10	mA
Operation Current	I_{op}	$P_o = 10 \text{ mW}$		25	30	mA
Operation Voltage	V_{op}	$P_o = 10 \text{ mW}$	1.8	1.9	2.0	V
Lasing Wavelength	λ_p	$P_o = 10 \text{ mW}$	845	850	855	nm
Beam Divergence	$\theta_{//}$	$P_o = 10 \text{ mW}$	8	10	11	°
Beam Divergence	$\theta_{\perp}$	$P_o = 10 \text{ mW}$	25	30	40	°
Differential Efficiency	η	$P_o = 10 \text{ mW}$	400	500	550	$\mu\text{W}/\text{mA}$
Monitor Current	I_m	$P_o = 10 \text{ mW}, V_f = 5\text{V}$	0.8	1.5	2.0	mA