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RLT1060-60MG

- **Infrared Laser Diode**
- **1060 nm, 60 mW, SM**
- **TO56 package, Flat Window**

RoHS COMPLIANT Pb Pb-Free

Description

RLT1060-60MG is an infrared Fabry Perot quantum well laser diode, typically emitting at 1060 nm, with a nominal output power of 60 mW. It features single mode emission and wide operating temperature range of up to 50°C. It is an efficient radiation source for many industrial applications. **RLT1060-60MG** comes in 5.6 mm TO-Can package with **integrated monitor photodiode**.

Maximum Ratings* (T_{CASE} = 25°C)

Parameter	Symbol	Values		Unit
		Min.	Max.	
Optical Output Power*[1]	P_O		65	mW
LD Reverse Voltage	V_{RLD}		2	V
PD Reverse Voltage	V_{RPD}		30	V
Operating Temperature*[1]	T_{OPR}	- 10	+ 50	°C
Storage Temperature	T_{STG}	- 20	+ 80	°C
Soldering Temperature (max. 3s)	T_{SOL}		+ 260	°C

* operating close to or outside these conditions may damage the device

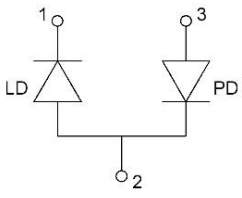
Electro-Optical Characteristics (T_{CASE} = 25°C)

Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Peak Wavelength	λ_P	**1050**	**1060**	**1070**	**nm**
Optical Output Power	P_O		60		mW
Spectral Width (FWHM)	$\Delta\lambda$		2		nm
Operating Voltage	V_F		1.4		V
Threshold Current	I_{th}		15		mA
Operating Current	I_F		90		mA
Monitor Current	I_M		0.7		mA
Slope Efficiency	η		0.73		W/A
Beam Divergence (FWHM)	Θ_{II}, $\Theta_{\perp}$		10x30		deg.

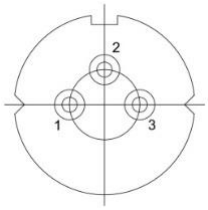
Electrical Connection

Pin Configuration

Pin #	Function
Pin 1	LD cathode
Pin 2 [case]	LD anode, PD cathode
Pin 3	PD anode



Bottom View



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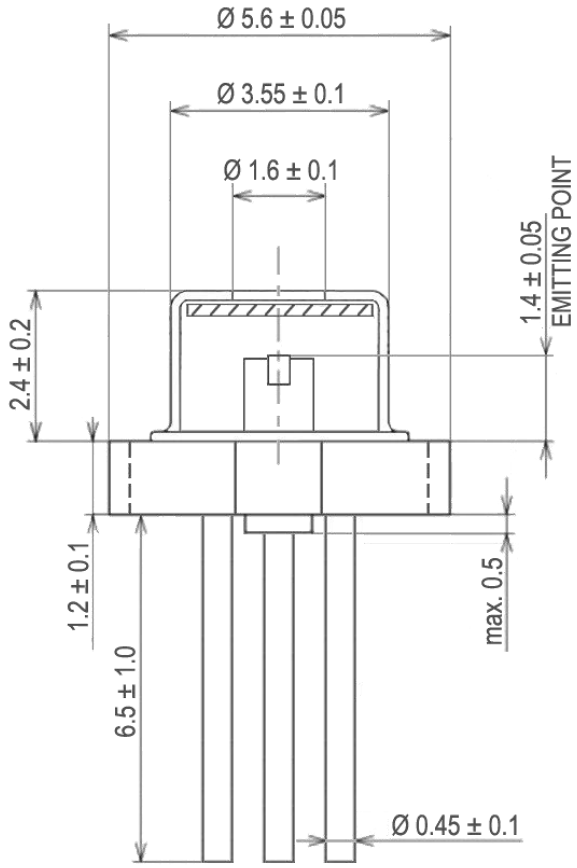
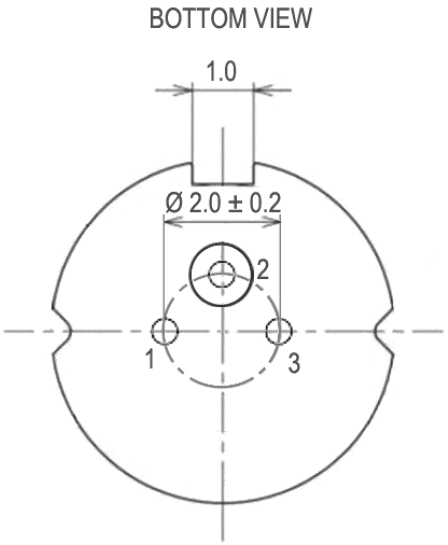
Outline Dimensions





All dimensions in mm

Precautions

Safety

Caution: This laser diode emits highly concentrated light which can be **hazardous to the human eye and skin**. This diode is classified as **CLASS 3B laser product** according to **IEC 60825-1** and **21 CFR Part 1040.10 Safety Standards**.

ESD caution

Always do handle laser diodes with extreme care to **prevent electrostatic discharge**, the primary cause of unexpected diode failure. To prevent ESD related failures, it is strongly advised to always **wearing wrist straps**, and **grounding all applicable work surfaces**, when handling laser diodes

Operating considerations

It is strongly advised to only operate this laser diode with a current source. The current of a laser diode is an exponential function of the voltage across it. **Usage of current regulated drive circuits is mandatory.** Laser diodes may be damaged by excessive drive currents or switching transients. **Proper heat sinking will greatly enhance stability and lifetime of the laser diode**