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## RLT635-30MGS

- Red Laser Diode
- 638 nm, 30 mW
- Single transverse mode
- TO18 package, Flat Window



### Description

**RLT635-30MGS** is a red laser diode, typically emitting at 635 nm. It features **single transverse mode** emission and low operating current. **RLT635-30MGS** comes in 5.6 mm TO-Can package **with integrated PD**.

### Maximum Ratings\*

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	$U_R$		2	V
Operating Temperature*	$T_{OPR}$	- 10	+ 50	°C
Storage Temperature*	$T_{STG}$	- 40	+ 85	°C
Soldering Temperature (max. 3s)	$T_{SOL}$		+ 260	°C

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

### Electro-Optical Characteristics ( $T_{CASE} = 25^{\circ}C$ )

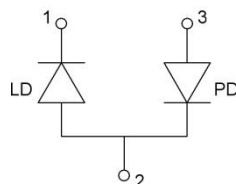
Parameter	Symbol	Values			Unit	
		Min.	Typ.	Max.		
<b>Peak Wavelength</b>	$\lambda_P$	<b>628</b>	<b>638</b>	<b>648</b>	nm	
<b>Optical Output Power</b>	$P_O$		<b>30</b>		mW	
Spectral Width (FWHM)	$\lambda$		2.0		nm	
Operating Voltage	$U_F$		2.4	2.7	V	
Threshold Current	$I_{th}$		40	65	mA	
Operating Current	$I_F$		75	85	mA	
PD Current	$I_{PD}$		0.2		mA	
PD Reverse Voltage	$V_{PD}$			30	V	
Beam Divergence (FWHM)	parallel	$\Theta_{  }$	6	10	15	deg.
	perpendicular	$\Theta_{\perp}$	15	22	25	deg.



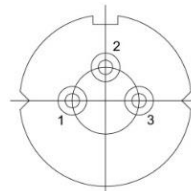
### Electrical Connection

#### Pin Configuration

Pin #	Function
Pin 1	LD cathode
Pin 2	LD anode, PD cathode
Pin 3	PD anode

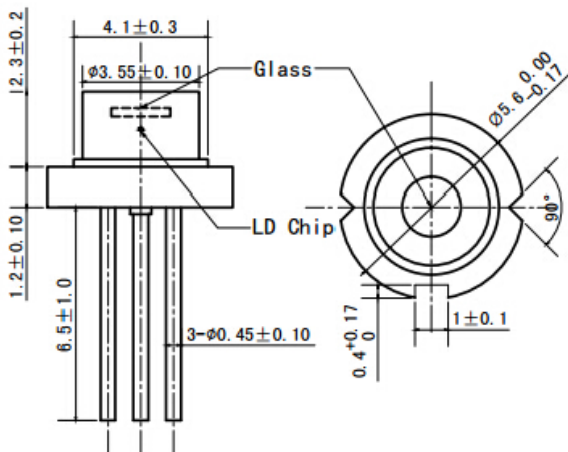


#### Bottom View





## Outline Dimensions



All dimensions in mm

## Precautions

### Safety

Laser light emitted from any laser diode may be harmful to the human eye. **Avoid looking directly into the laser diode's aperture.** The use of optical lenses will increase eye hazard

### ESD Caution

Always do handle laser diodes with care to **prevent electrostatic discharge.** We advise to **wearing wrist straps and grounding all applicable work surfaces,** when handling laser diodes



### Operating Considerations

**Usage of current regulated drive circuits is mandatory** We advise to operate this laser diode with a current source and heat sink, and to never exceed the maximum specifications as outlined in this datasheet.

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