

# **RLT1600-40G**



### TECHNICAL DATA (PRELIMINARY)

## **High Power Infrared Laser Diode**

#### Features

- Peak Wavelength : single mode, typ. 1600 nm
- Optical Ouput Power: 40 mW
- Package: 9 mm



#### **Electrical Connection**

Pin Configuration			Bottom View
	n-type		2
	PIN	Function	
	1	LD Cathode	$\rightarrow \oplus + \oplus \rightarrow$
	2	LD Anode, PD Cathode	
	3	PD Anode	
02			

#### Absolute Maximum Ratings (T<sub>c</sub>=25°C)

Item	Symbol	Value	Unit
CW Output Power	Po	40	mW
Maximum LD Current	l <sub>f</sub>	250	mA
Operating Case Temperature	Tc	-20 +40	°C
Storage Temperature	T <sub>stg</sub>	-40 +70	°C

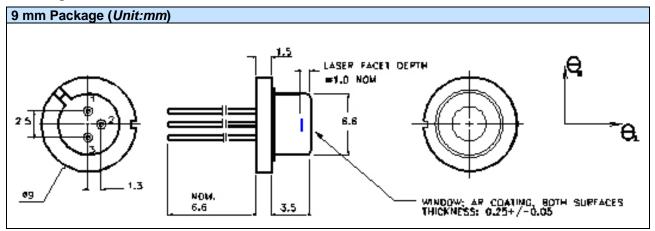
#### Specifications (T<sub>c</sub>=25°C)

Item	Symbol	Condition	Min.	Тур.	Max.	Unit		
Optical Specification								
CW Output Power	Po	CW	-	40	-	mW		
Peak Wavelength	λ <sub>P</sub>	$P_0 = 40 \text{ mW}$	1580	1600	1620	nm		
Spectral Width (FWHM)	Δλ	$P_0 = 40 \text{ mW}$	-	-	10	nm		
FWHM Beam Divergence	θ∥	$P_0 = 40 \text{ mW}$	-	10	-	deg		
	θ⊥	$P_0 = 40 \text{ mW}$	-	50	-	deg		
Emitting Aperature	WxH			5 x 1		μm		
Electrical Specification								
Threshold Current	l <sub>th</sub>	CW	-	-	50	mA		
Operating Current	I <sub>op</sub>	$P_0 = 40 \text{ mW}$	-	-	250	mA		
Operating Voltage	U <sub>op</sub>	$P_0 = 40 \text{ mW}$	-	2	-	V		
Monitor Current	l <sub>m</sub>	$P_0 = 40 \text{ mW}$	-	-	-	μA		

The above specifications are for reference purpose only and subjected to change without prior notice.



#### Package Dimensons



#### Safety of Laser light

 Laser Light can damage the human eyes and skin. Do not expose the eye or skin directly to any laser light and/or through optical lens. When handling the LDs, wear appropriate safety glasses to prevent laser light, even any reflections from entering to the eye. Focused laser beam through optical instruments will increase the chance of eye hazard.



• These LDs are emitting invisible light.

#### Cautions

#### 1. Operating methode

- This LD shall change its forward voltage requirement and optical ouput power according to temperature change. Also, the LD will require more operation current to maintain same ouput power as it degrades. In order to maintain output power, use of APC (Automatic Power Control) is recommended. Which use monitor feedback to adjust the operation current.
- Confirm that electrical spike current generated by switching on and off does not exceed the maximum operating current level specified herein above as absolute maximum rating. Also, employ appropriat countermeasures to reduce chattering and/or overshooting in the circuit.

#### 2. Static Electricity

• Static electricity or electrical surges will reduce and degrade the reliability of the LDs. It is recommended to use a wrist trap or anti-electrostatic glove when handeling the product.

#### 3. Absolute Maximum Rating

 Active layer of LDs shall have high current density and generate high electric field during its operation. In order to prevent excessive damage, the LD must be operated strictly below absolute maximum rating.

