

**DL-3150-127****Infrared Laser Diode (Frame Type)****Features**

- Wavelength : 790 nm (Typ.)
- Low threshold current : $I_{th} = 20$ mA (Typ.)
- Frame type
- Ultra compact lightweight thin package
- Straight leads

Applications

- For the general applications (Compact disk, CD-ROM)

Absolute Maximum Ratings at $T_c=25^\circ\text{C}$ (as per JISC 7032)

Parameter	Symbol	Condition	Ratings	Unit
Light Output	P_o	Kink free	5	mW
Reverse Voltage	Laser PIN V_R	-	2	V
		-	30	
Operating Temperature	T_{opr}	1)	-10 to +60	$^\circ\text{C}$
Storage Temperature	T_{stg}	1)	-40 to +85	$^\circ\text{C}$
Soldering Temperature	T_{sol}	2)	260	$^\circ\text{C}$

1) Case temperature

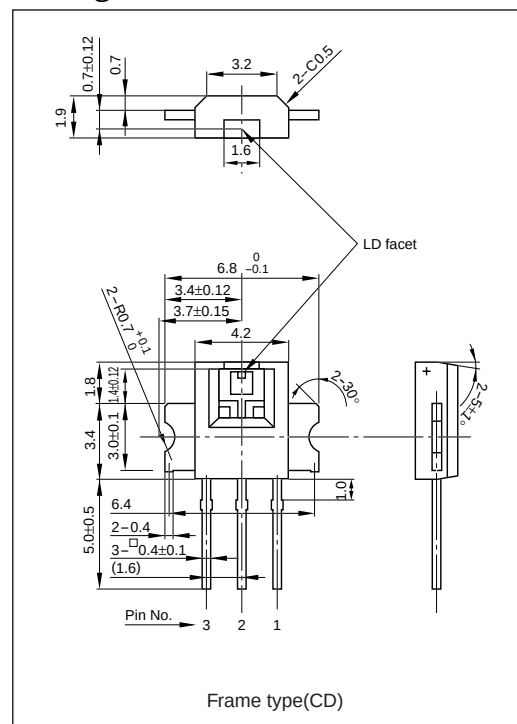
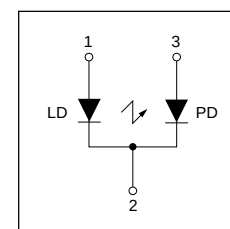
2) Soldering Time ≤ 3 s, 1.6 mm from the root of a lead.**Electrical and Optical Characteristics 3) 4) at $T_c=25^\circ\text{C}$**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current	I_{th}	CW	-	20	30	mA
Operating Current	I_{op}	$P_o=3\text{mW}$	-	25	35	mA
Operating Voltage	V_{op}	$P_o=3\text{mW}$	1.6	1.8	2.3	V
Peak Lasing Wavelength 5)	λ_p	$P_o=3\text{mW}$	-	790	815	nm
Light Output Power	P_o	-	-	3	-	mW
Beam 6) Divergence	Perpendicular	$\theta_\perp$	$P_o=3\text{mW}$	25	35	$^\circ$
	Parallel	$\theta_\parallel$	$P_o=3\text{mW}$	8	11	$^\circ$
Off Axis Angle	Perpendicular	$\Delta\theta_\perp$	$P_o=3\text{mW}$	-	-	$^\circ$
	Parallel	$\Delta\theta_\parallel$	$P_o=3\text{mW}$	-	-	$^\circ$
Monitoring Output Current	I_m	$P_o=3\text{mW}$	0.08	0.20	0.40	mA

3) Initial values 4) All the above values are evaluated with Tottori Sanyo's measuring apparatus

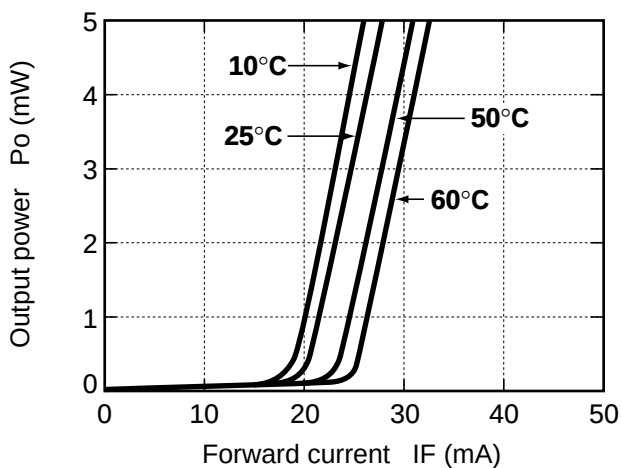
5) Wafer lot go/no-go decision criteria 6) Full angle at half maximum

Note : The above product specification are subject to change without notice.

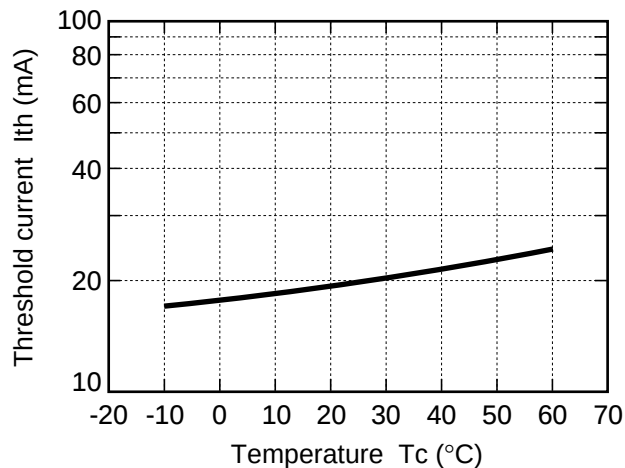
Package Dimensions**Pin Connection**

Characteristics

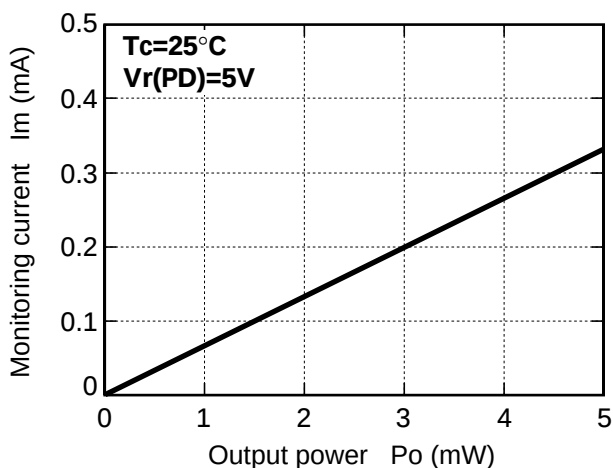
Output power vs. Forward current



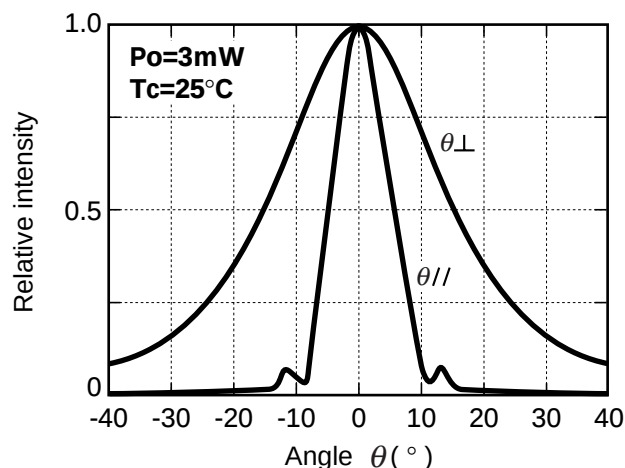
Threshold current vs. Temperature



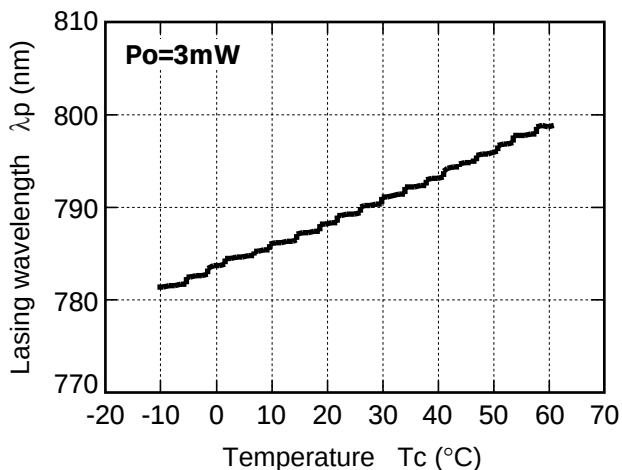
Monitoring current vs. Output power



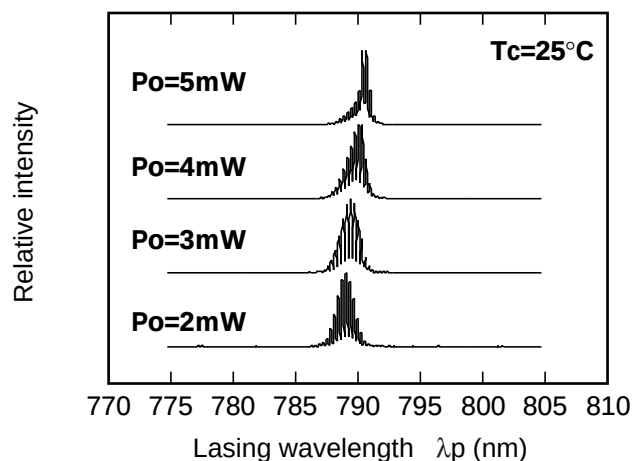
Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power





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Precautionary instructions in handling gallium arsenic products

Special precautions must be taken in handling this product because it contains, gallium arsenic, which is designated as a toxic substance by law. Be sure to adhere strictly to all applicable laws and regulations enacted for this substance, particularly when it comes to disposal.

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