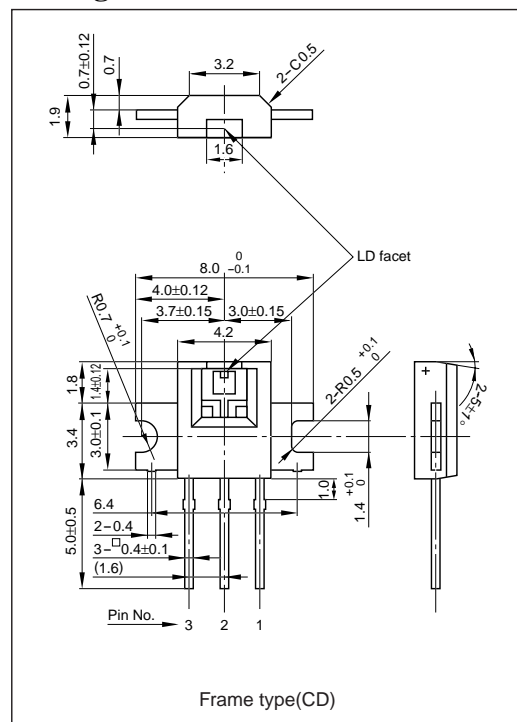


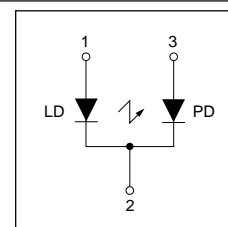
**DL-3150-105****Infrared Laser Diode (Frame Type)****Features**

- Wavelength : 790 nm (Typ.)
- Frame type
- Compact lightweight thin package
- Straight leads

**Package Dimensions****Absolute Maximum Ratings at Tc=25°C** (as per JISC 7032)

Parameter	Symbol	Condition	Ratings	Unit	
Light Output	Po	Kink free	5	mW	
Reverse Voltage	Laser PIN	VR	-	2	V
			-	30	
Operating Temperature	Topr	1)	-10 to +70	°C	
Storage Temperature	Tstg	1)	-40 to +85	°C	
Soldering Temperature	Tsol	2)	260	°C	

- 1) Case temperature  
2) Soldering Time≤3s, 1.6 mm from the root of a lead.

**Pin Connection****Electrical and Optical Characteristics** 3) 4) at Tc=25°C

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	Ith	CW	-	35	50	mA	
Operating Current	Iop	Po=3mW	-	45	60	mA	
Operating Voltage	Vop	Po=3mW	1.6	1.8	2.3	V	
Peak Lasing Wavelength 5)	λ p	Po=3mW	-	790	800	nm	
Light Output Power	Po	-	-	3	-	mW	
Beam 6) Divergence	Perpendicular	θ ⊥	Po=3mW	25	35	45	°
	Parallel	θ //	Po=3mW	8	10	14	°
Off Axis Angle	Perpendicular	Δ θ ⊥	Po=3mW	-	-	±3	°
	Parallel	Δ θ //	Po=3mW	-	-	±2	°
Differential Efficiency	dPo/dIop	Po=3mW	0.18	0.35	-	mW/mA	
Monitoring Output Current	Im	Po=3mW	0.05	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

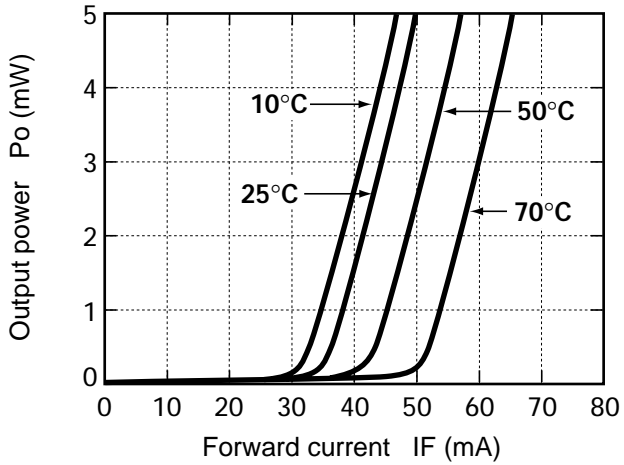
Note : The above product specification are subject to change without notice.

**SANYO Electric Co.,Ltd. Semiconductor Company**

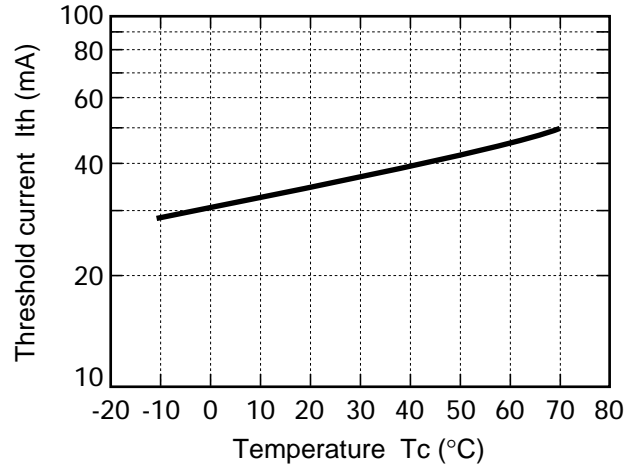
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

## Characteristics

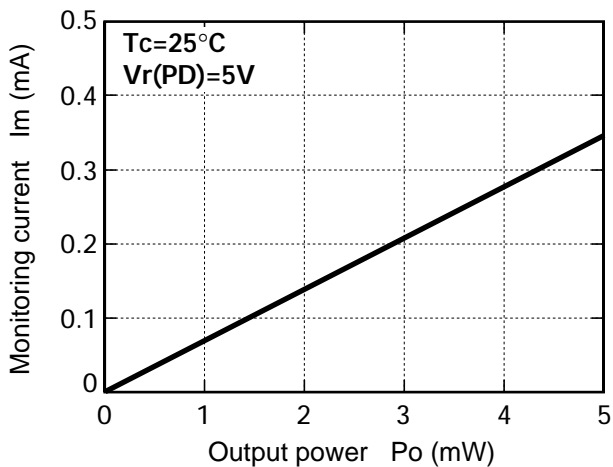
Output power vs. Forward current



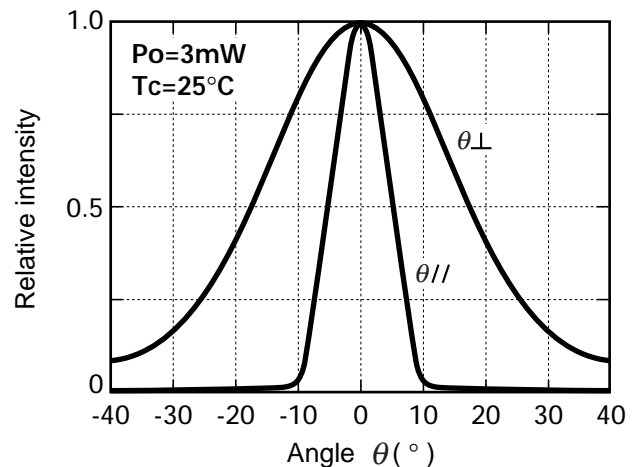
Threshold current vs. Temperature



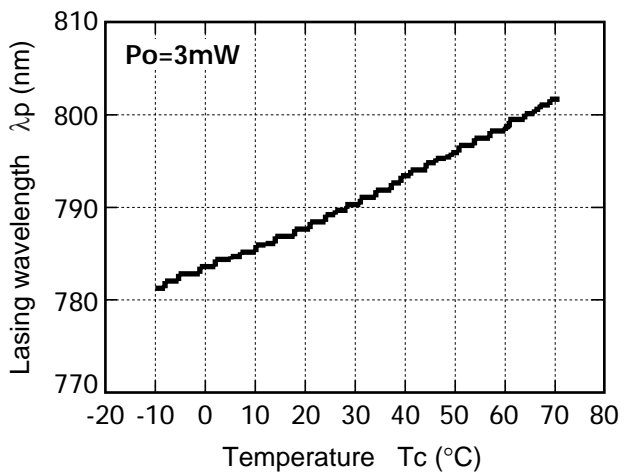
Monitoring current vs. Output power



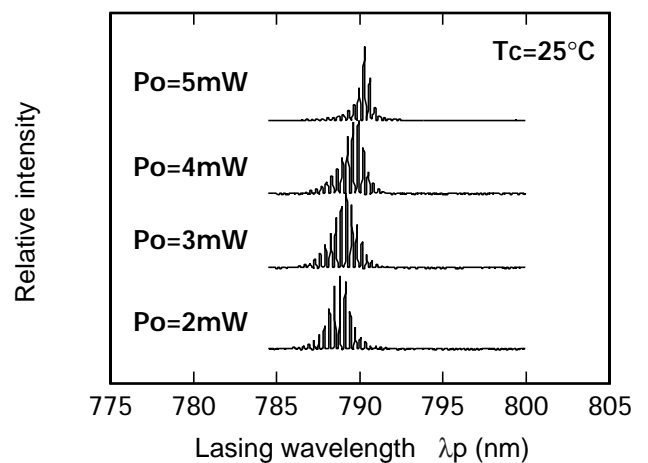
Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power



 **CAUTION**

1. No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster / crime-prevention equipment or the like, and the failure of which may directly or indirectly cause injury, death or property loss.
2. Anyone purchasing any products described or contained herein for an above-mentioned use shall:
  - 1) Accept full responsibility and indemnify and defend SANYO ELECTRIC CO.,LTD., it's affiliates, subsidiaries and distributors or any of their officers and employees, jointly and severally, against any and all claims and litigation and all damages, costs and expenses associated with such use.
  - 2) Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., it's affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
3. Information (including circuit diagrams and circuit parameters) disclosed herein is for example only; it is not guaranteed for mass production, SANYO believes the information disclosed herein is accurate and reliable, but no guarantees are made or implied regarding it's use or any infringements of intellectual property rights or other rights of third parties.

## 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.

Manufactured by ; **Tottori SANYO Electric Co., Ltd.**  
LED Business Unit  
5-318, Tachikawa-cho, Tottori City, 680-8634 Japan  
TEL: +81-857-21-2137 FAX: +81-857-21-2161