

CUSTOMER : _____

SPECIFICATION

CUSTOMER APPROVAL	DESCRIPTION	Infrared Emitting Diode	
	MODEL NO.	OL94NLB-B	
	DOCUM. NO.	ODT-W010-77(O)	
	ISSUED DATE	2004. 5.25	
	CHECK	CONFIRM	APPROVAL

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■ Description

The OL94NLB-B is a high efficiency infrared emitting diode in GaAlAs technology, molded in clear, blue grey tinted plastic packages. The forward voltages at low current and at high pulse current roughly correspond to the low values of the standard technology.

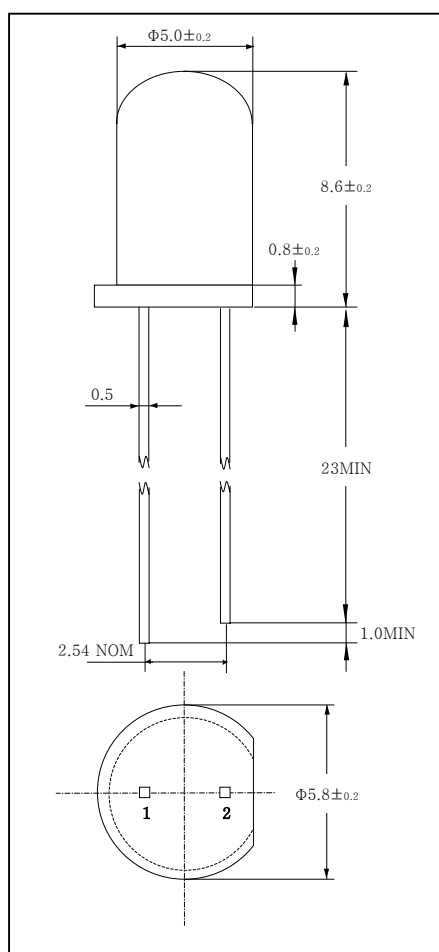
■ Features

- Extra high radiant power and radiant intensity
- High reliability
- Low-cost plastic package
- Suitable for high pulse current operation

■ Applications

- Infrared remote control units with high power requirements
- Free air transmission systems
- Infrared source for optical counters and card readers

■ Outline Dimensions (Unit : mm)



Pin Connectors

1. Anode
2. Cathode

■ Absolute Maximum Ratings

(Ta= 25℃)

Parameter	Symbol	Ratings	Unit
Reverse Voltage	V_R	5	V
Forward Current	I_F	100	mA
Pulse Forward Current (*1)	I_{FP}	1	A
Power Dissipation	P_D	150	mW
Operating Temperature	T_{OPR}	-30 ~ 85	℃
Storage Temperature	T_{STG}	-30 ~ 100	℃

*1 : Pulse width $t_w=100\mu s$, $T=10ms$

■ Electro-Optical Characteristics

(Ta=25℃)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=100mA$	—	1.35	1.6	V
Reverse Current	I_R	$V_R=5V$	—	—	10	μA
Radiant Intensity	P_O	$I_F=100mA$	80	—	—	mW/sr
Peak Wavelength	λ_P	$I_F=50mA$	—	940	—	nm
Spectral Bandwidth 50%	$\Delta\lambda$	$I_F=100mA$	—	42	—	nm
Half Angle	$\Delta\Theta$		—	± 10	—	Deg.

■ Typical Characteristics

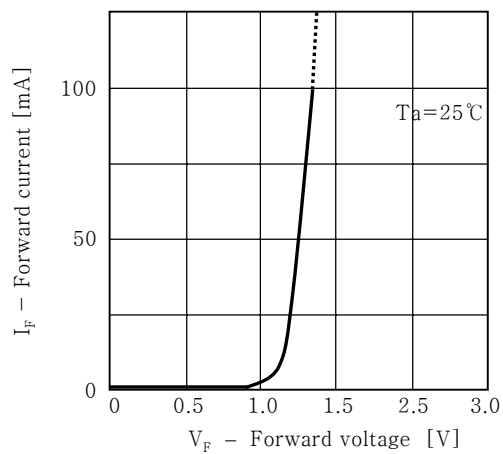


Fig.1 Forward Current vs. Forward voltage

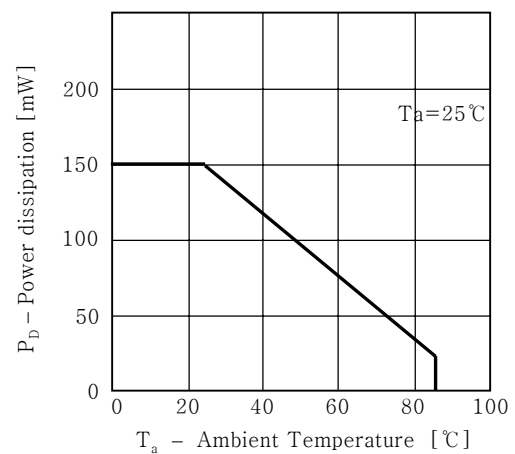


Fig.2 Radiant Intensity vs. Ambient Temperature

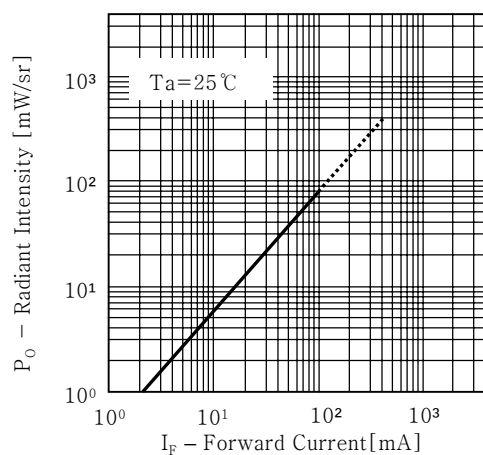


Fig.4 Radiant Intensity vs. Forward Current

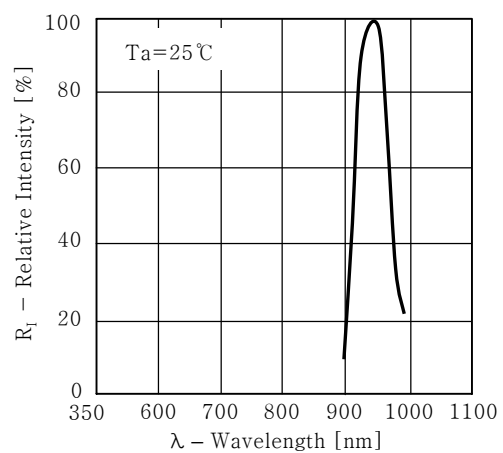


Fig.4 Relative Spectral Sensitivity vs. Wavelength

■ Typical Characteristics

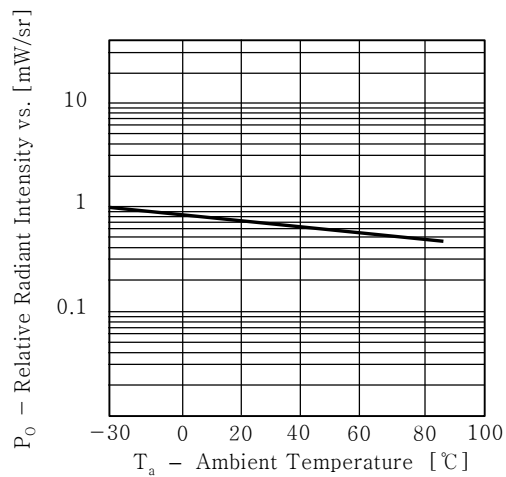


Fig.5 Relative Radiant Intensity vs. Ambient Temperature

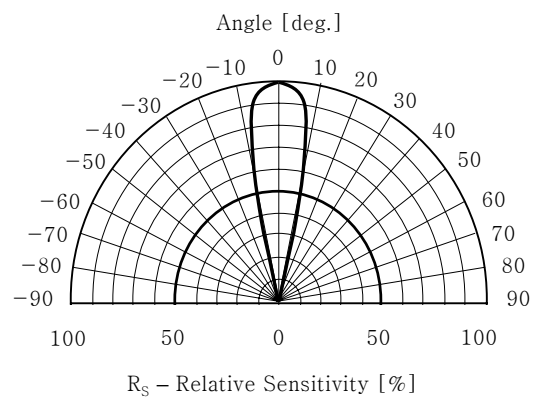


Fig.6 Radiant Pattern