HE8811

GaAlAs Infrared Emitting Diode

ODE-208-999B (Z)

Rev.2
Mar. 2005

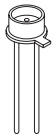
Description

The HE8811 is a GaAlAs infrared emitting diode with a double heterojunction structure. It is high brightness, high output power and fast response make it suitable as a light source in measuring instruments and infrared-beam communication equipment.

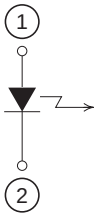
Features

- High-frequency response
- High efficiency and high output power
- Broad radiation pattern

Package Type
• HE8811: SG1



Internal Circuit



Absolute Maximum Ratings

(T_C = 25°C)

Item	Symbol	Value	Unit
Forward current	I_F	200	mA
Reverse voltage	V_R	3	V
Operating temperature	Topr	–20 to +60	°C
Storage temperature	Tstg	–40 to +90	°C

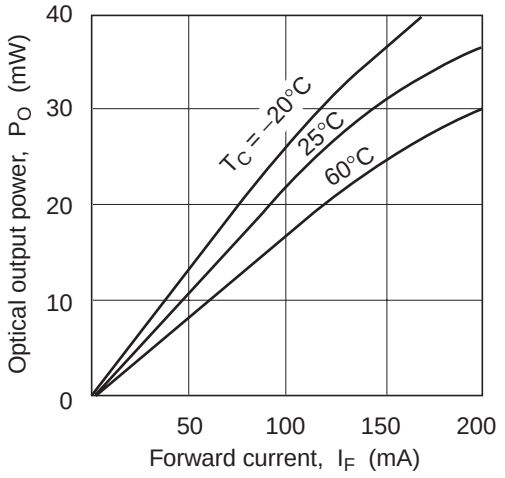
Optical and Electrical Characteristics

(T_C = 25°C)

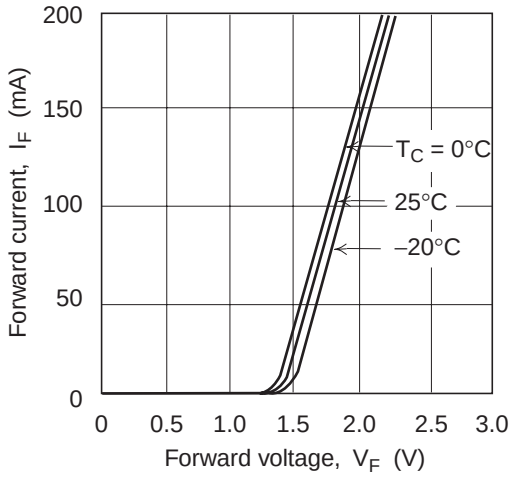
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical output power	P_O	20	30	—	mW	I_F = 150 mA
Peak wavelength	λp	780	820	900	nm	I_F = 150 mA
Spectral width	Δλ	—	50	—	nm	I_F = 150 mA
Forward voltage	V_F	—	—	2.5	V	I_F = 150 mA
Reverse current	I_R	—	—	100	µA	V_R = 3 V
Capacitance	Ct	—	10	—	pF	V_R = 0 V, f = 1 MHz
Rise time	t_r	—	5	—	ns	I_F = 50 mA
Fall time	t_f	—	7	—	ns	I_F = 50 mA

Typical Characteristic Curves

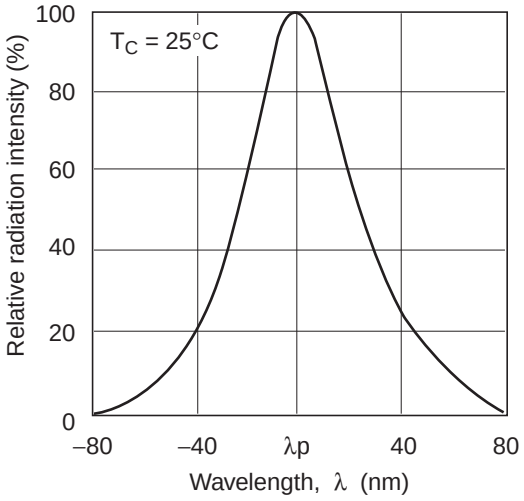
Optical Output Power vs. Forward Current



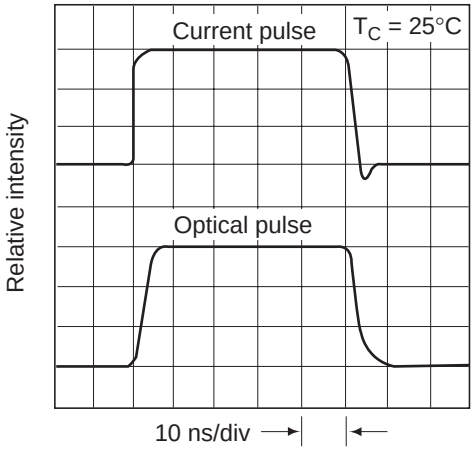
Forward Current vs. Forward Voltage



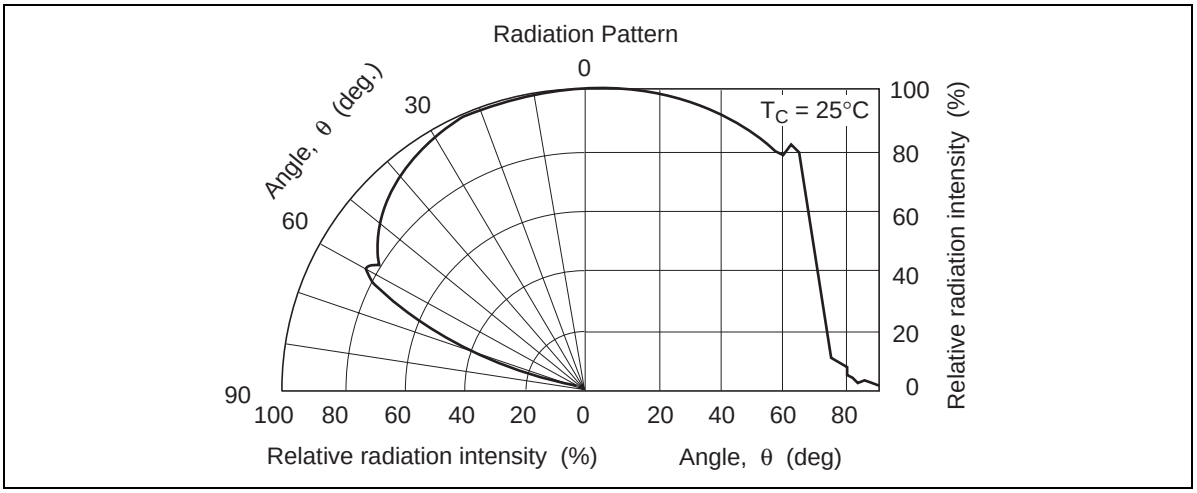
Spectral Distribution



Pulse Response

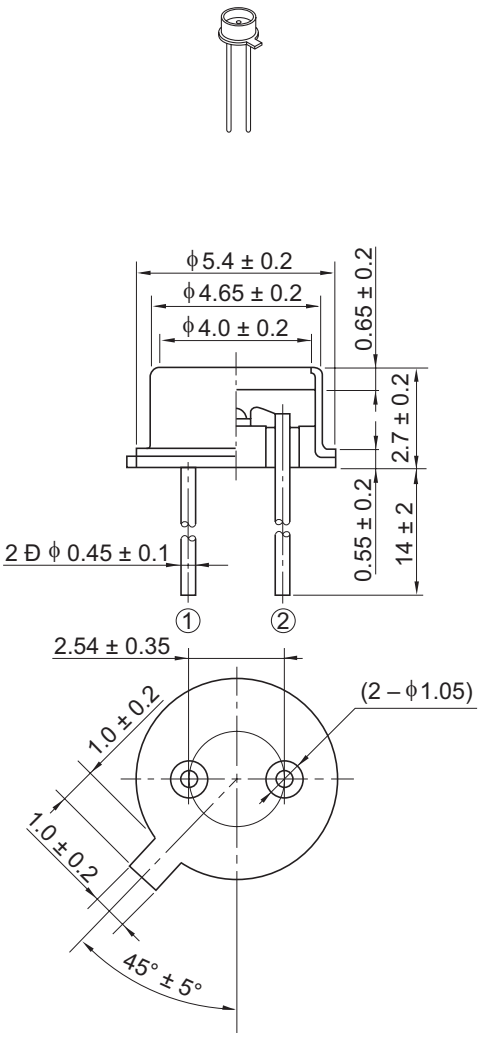


Typical Characteristic Curves (cont)



Package Dimensions

As of July, 2002
Unit: mm



OPJ Code	IR/SG1
JEDEC	—
JEITA	—
Mass (reference value)	0.25 g

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1. The laser light is harmful to human body especially to eye no matter what directly or indirectly. The laser beam shall be observed or adjusted through infrared camera or equivalent.
2. This product contains gallium arsenide (GaAs), which may seriously endanger your health even at very low doses. Please avoid treatment which may create GaAs powder or gas, such as disassembly or performing chemical experiments, when you handle the product.
   When disposing of the product, please follow the laws of your country and separate it from other waste such as industrial waste and household garbage.
3. Definition of items shown in this CAS is in accordance with that shown in Opto Device Databook issued by OPJ unless otherwise specified.

Sales Offices

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