HE7601SG

GaAlAs Infrared Emitting Diode

ODE-208-023 (Z)
Rev.0
Oct. 27, 2006

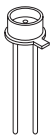
Description

The HE7601SG is a 770 nm band GaAlAs infrared emitting diode with a double heterojunction structure. It is suitable as a light source for optical control devices and sensors.

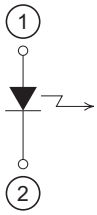
Features

- High efficiency and high output power

Package Type
• HE7601SG: SG1



Internal Circuit



Absolute Maximum Ratings

(T_C = 25°C)

Item	Symbol	Ratings	Unit
Forward current	I_F	250	mA
Reverse voltage	V_R	3	V
Operating temperature	Topr	–20 to +60	°C
Storage temperature	Tstg	–40 to +90	°C

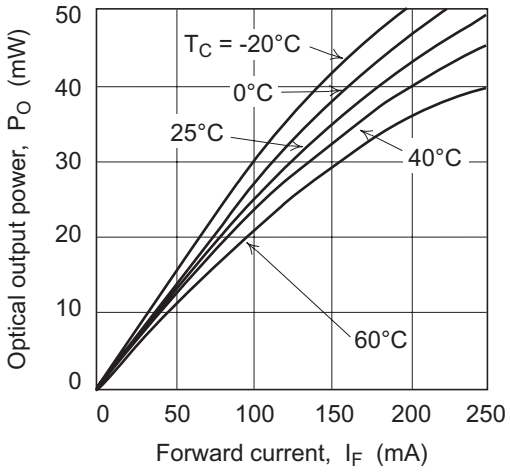
Optical and Electrical Characteristics

(T_C = 25°C)

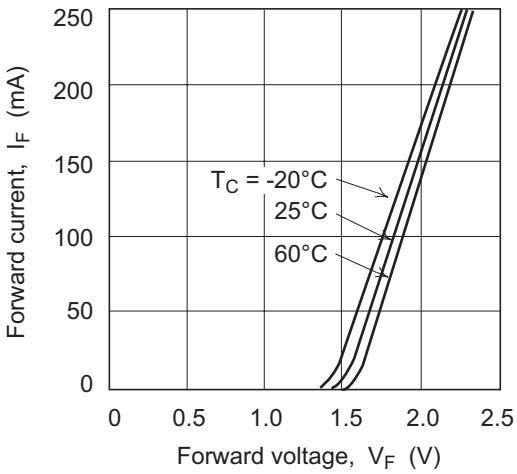
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical output power	P_O	30	—	—	mW	—
Peak wavelength	λp	740	770	800	nm	I_F = 200 mA
Spectral width	Δλ	—	50	60	nm	I_F = 200 mA
Forward voltage	V_F	—	—	2.5	V	I_F = 200 mA
Reverse current	I_R	—	—	100	μA	V_R = 3 V
Capacitance	Ct	—	30	—	pF	V_R = 0 V, f = 1 MHz
Rise time	t_r	—	10	—	ns	I_F = 50 mA
Fall time	t_f	—	10	—	ns	I_F = 50 mA

Typical Characteristic Curves

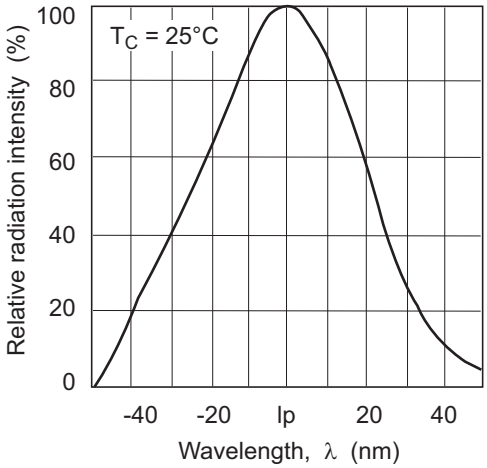
Optical Output Power vs. Forward Current



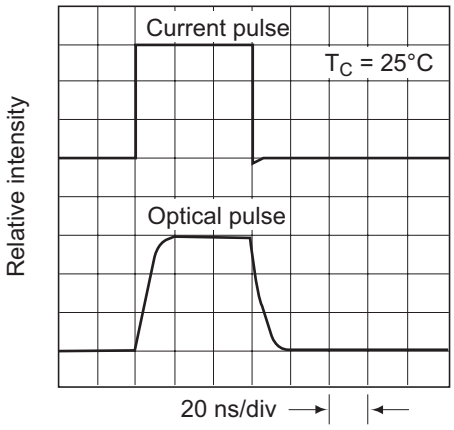
Forward Current vs. Forward Voltage



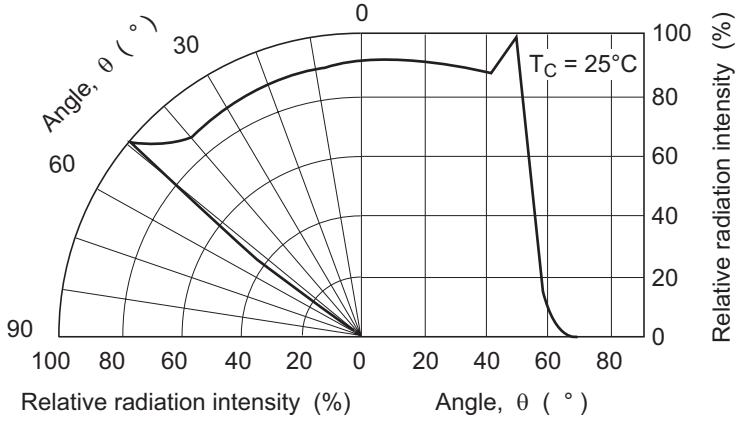
Spectral Distribution



Pulse Response



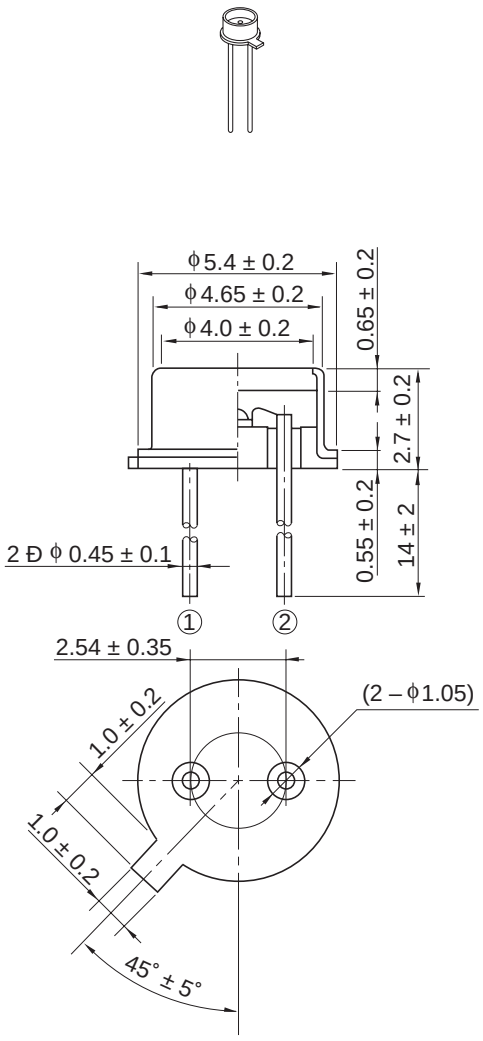
Radiation Pattern



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.
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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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