

HE8404SG

GaAlAs Infrared Emitting Diode

ODE2060-00 (M)

Rev.0

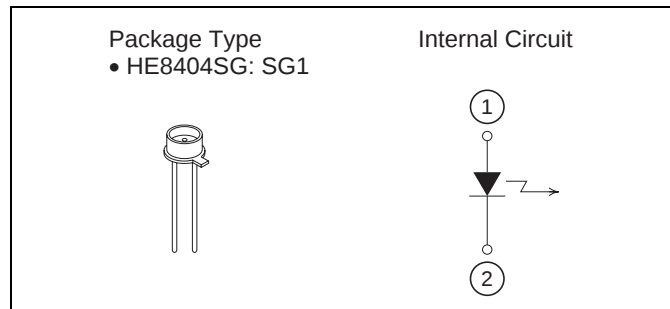
Aug. 01, 2008

Description

The HE8404SG is a GaAlAs double heterojunction structure 820 nm band light emitting diode. It is suitable for use as the light source in a wide range of optical control and sensing equipment.

Features

- High efficiency and high output power



Absolute Maximum Ratings

(T_C = 25°C)

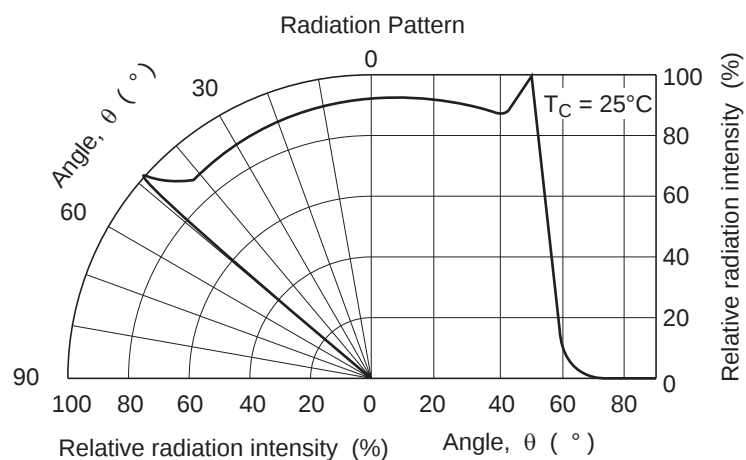
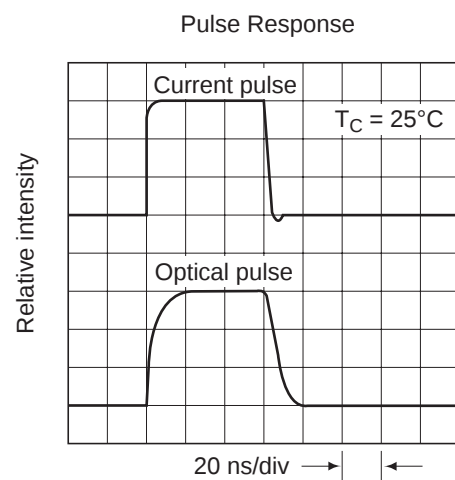
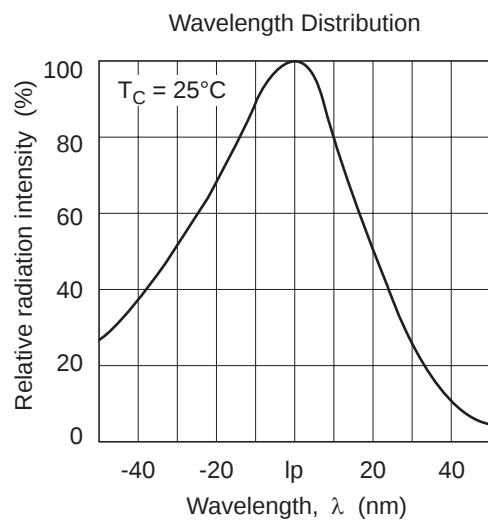
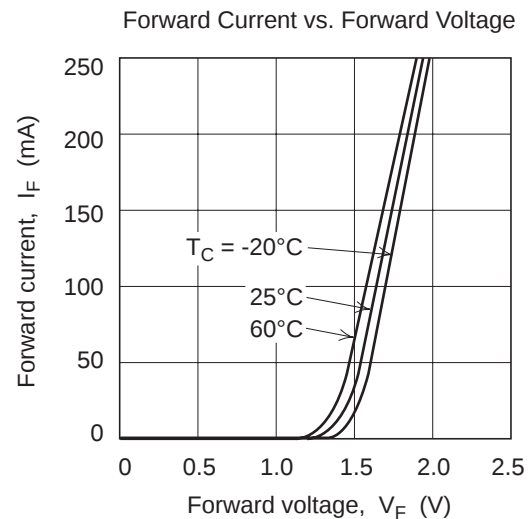
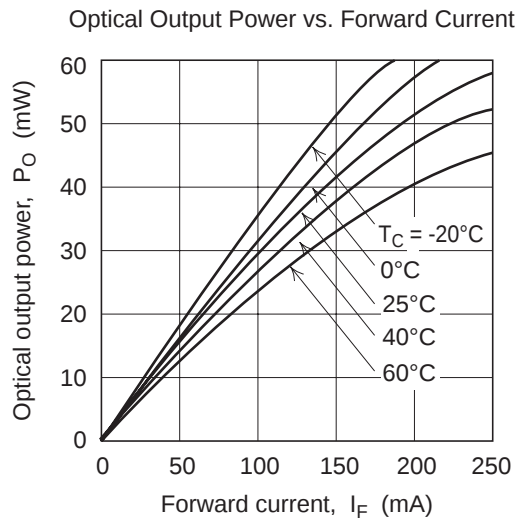
Item	Symbol	Ratings	Unit
Forward current	I _F	250	mA
Reverse voltage	V _R	3	V
Operating temperature	T _{opr}	-20 to +60	°C
Storage temperature	T _{stg}	-40 to +90	°C

Optical and Electrical Characteristics

(T_C = 25°C)

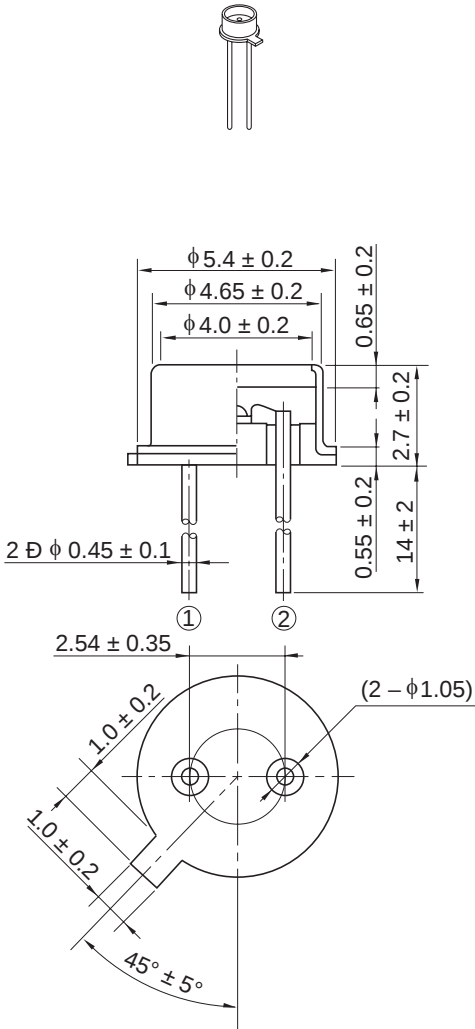
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical output power	P _O	40	—	—	mW	I _F = 200 mA
Peak wavelength	λ _p	790	820	850	nm	I _F = 200 mA
Spectral width	Δλ	—	50	60	nm	I _F = 200 mA
Forward voltage	V _F	—	—	2.5	V	I _F = 200 mA
Reverse current	I _R	—	—	100	μA	V _R = 3 V
Capacitance	C _t	—	30	—	pF	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



Package Dimensions

As of July, 2002
Unit: mm



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

Cautions

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4. Design your application so that the product is used within the ranges guaranteed by OPJ particularly for maximum rating, operating supply voltage range, heat radiation characteristics, installation conditions and other characteristics. OPJ bears no responsibility for failure or damage when used beyond the guaranteed ranges. Even within the guaranteed ranges, consider normally foreseeable failure rates or failure modes in semiconductor devices and employ systemic measures such as fail-safes, so that the equipment incorporating OPJ product does not cause bodily injury, fire or other consequential damage due to operation of the OPJ product.
5. This product is not designed to be radiation resistant.
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7. Contact our sales office for any questions regarding this document or OPJ products.

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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