
HE8404SG

GaAlAs Infrared Emitting Diode



ODE-208-997B (Z)

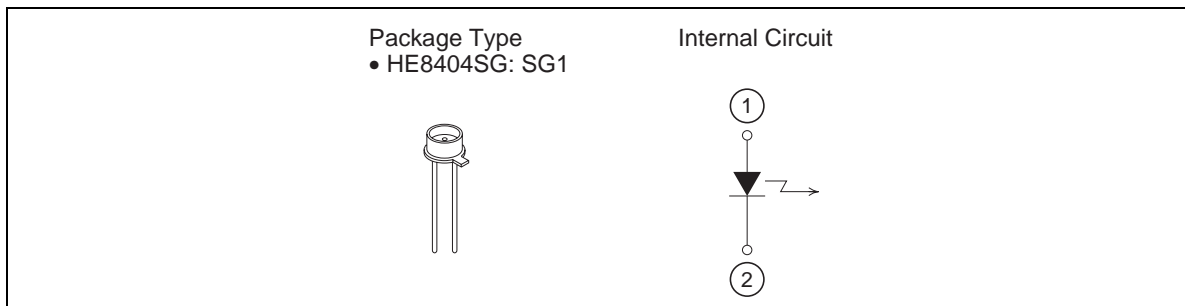
Rev.2
Mar. 2005

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



HE8404SG

Absolute Maximum Ratings

($T_C = 25^\circ\text{C}$)

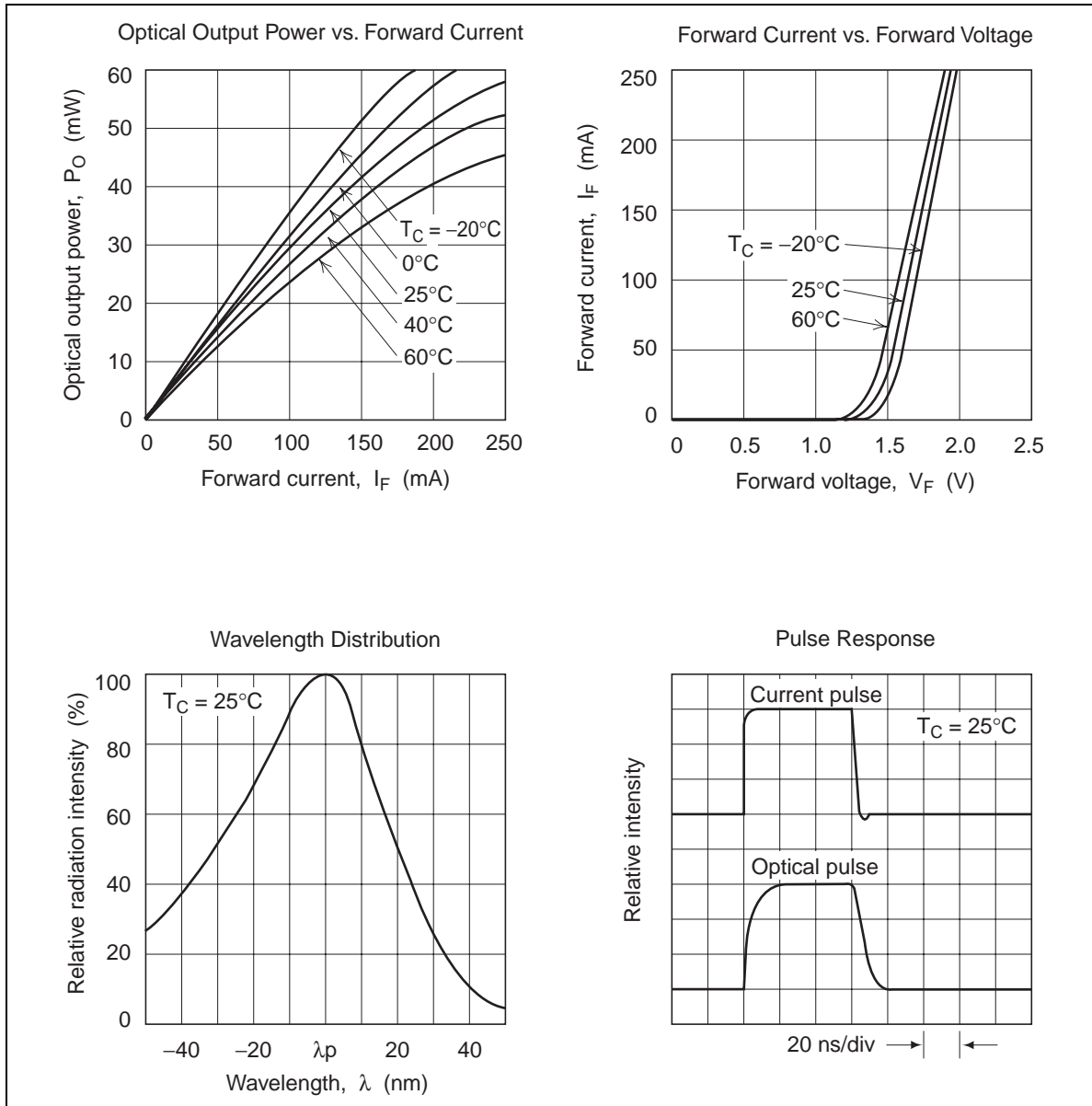
Item	Symbol	Value	Unit
Forward current	I_F	250	mA
Reverse voltage	V_R	3	V
Operating temperature	T_{opr}	-20 to +60	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +90	$^\circ\text{C}$

Optical and Electrical Characteristics

($T_C = 25^\circ\text{C}$)

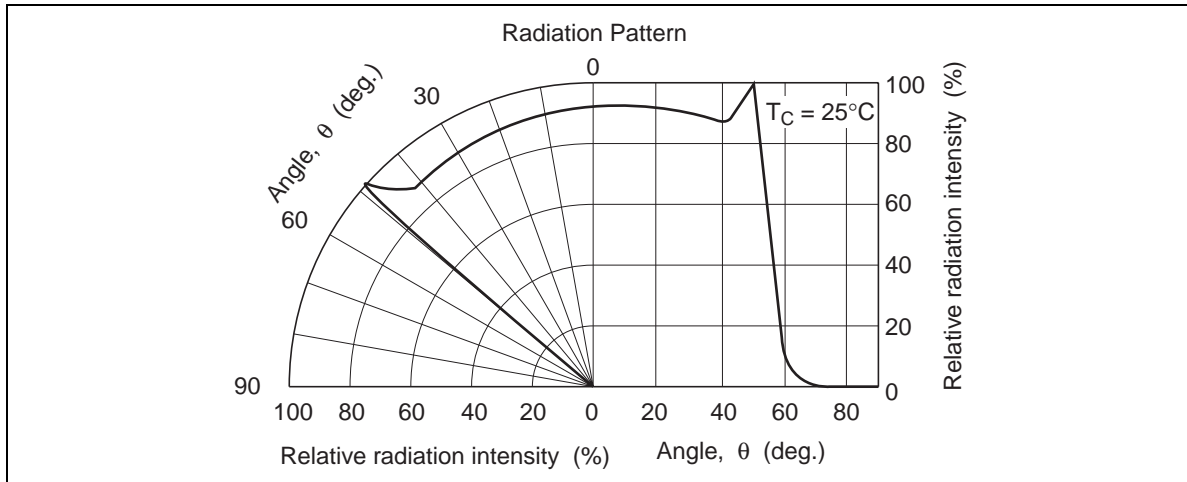
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical output power	P_O	40	—	—	mW	$I_F = 200\text{ mA}$
Peak wavelength	λ_p	790	820	850	nm	$I_F = 200\text{ mA}$
Spectral width	$\Delta\lambda$	—	50	60	nm	$I_F = 200\text{ mA}$
Forward voltage	V_F	—	—	2.5	V	$I_F = 200\text{ mA}$
Reverse current	I_R	—	—	100	μA	$V_R = 3\text{ V}$
Capacitance	C_t	—	30	—	pF	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$
Rise time	t_r	—	10	—	ns	$I_F = 50\text{ mA}$
Fall time	t_f	—	10	—	ns	$I_F = 50\text{ mA}$

Typical Characteristic Curves



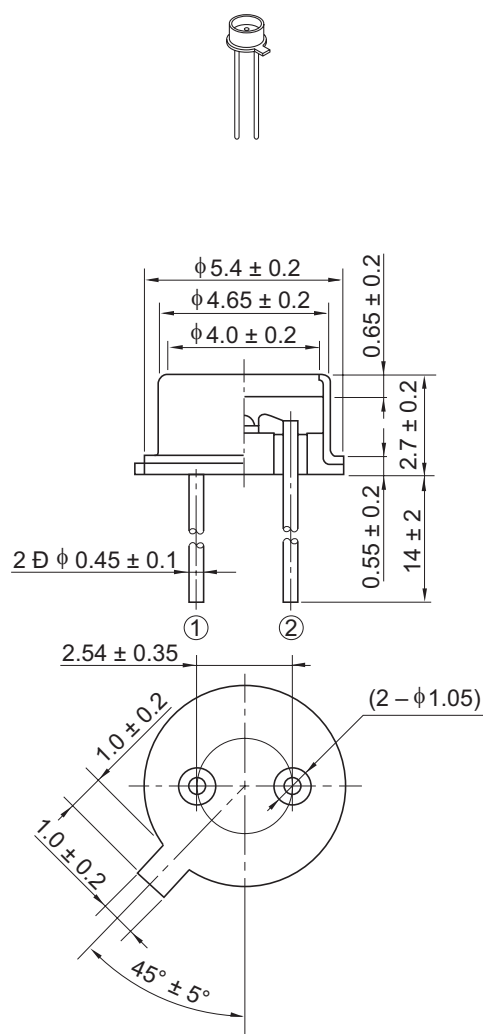
HE8404SG

Typical Characteristic Curves (cont)



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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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.
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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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