

# HE8807SG/FL

## GaAlAs Infrared Emitting Diodes

ODE2061-00 (M)

Rev.0

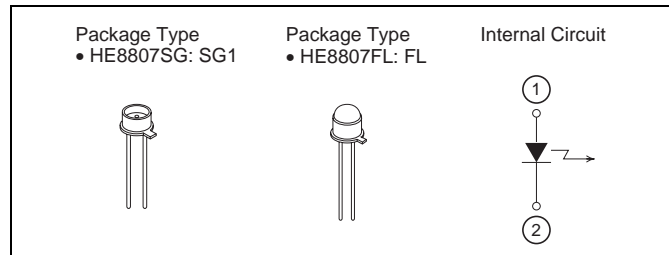
Aug. 01, 2008

### Description

The HE8807SG/FL are single heterojunction structure GaAlAs light emitting diodes with a wavelength of 880 nm.

### Features

- High output, high efficiency
- Narrow spectral width
- Sharp radiation directivity (HE8807FL)
- Wide radiation directivity (HE8807SG)
- High reliability



### Absolute Maximum Ratings

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

Item	Symbol	Ratings	Unit
Forward current	$I_F$	200	mA
Reverse voltage	$V_R$	3	V
Operating temperature	$T_{opr}$	-20 to +85	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +100	$^\circ\text{C}$

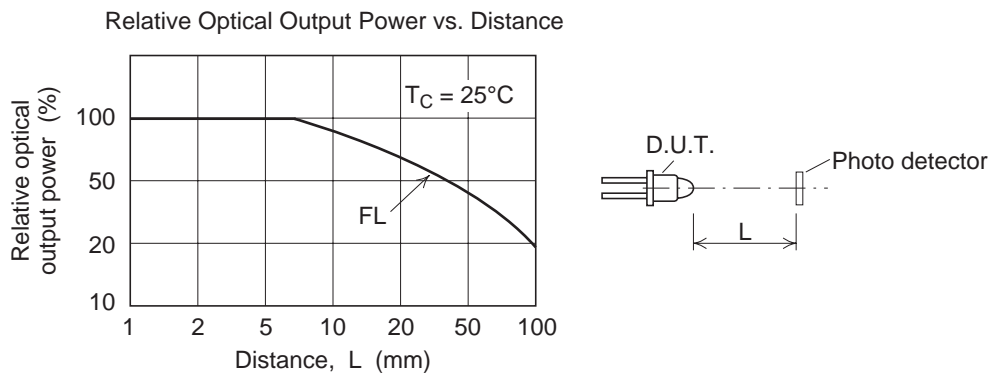
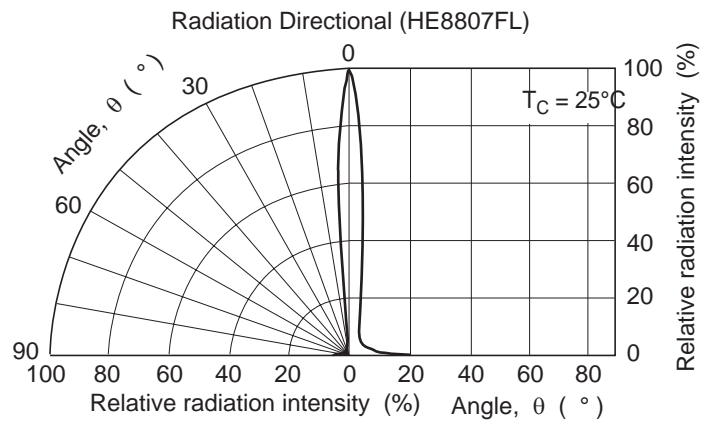
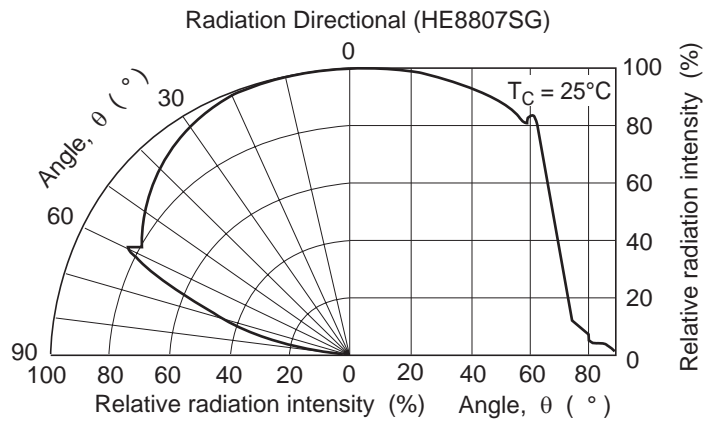
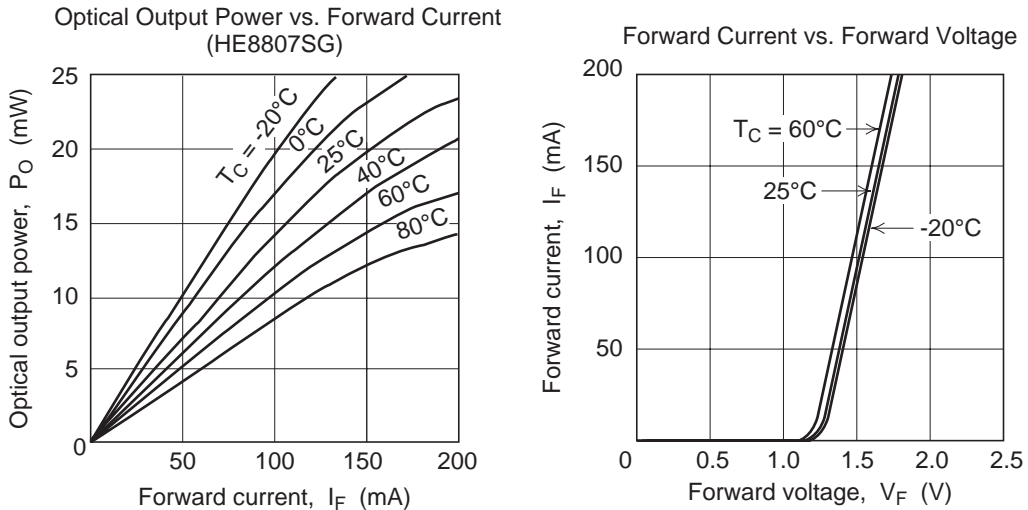
### Optical and Electrical Characteristics

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

Item	Symbol	Min	Typ	Max	Unit	Test Conditions	
Optical output power	HE8807SG	$P_O$	10	20	—	mW	$I_F = 150\text{ mA}$
	HE8807FL	$P_f^*$	0.5	1.0	—		$I_F = 20\text{ mA}$
Peak wavelength	$\lambda_p$	800	880	900	nm	$I_F = 150\text{ mA}$	
Spectral width	$\Delta\lambda$	—	30	60	nm	$I_F = 150\text{ mA}$	
Forward voltage	$V_F$	—	1.7	2.3	V	$I_F = 150\text{ mA}$	
Reverse current	$I_R$	—	—	100	$\mu\text{A}$	$V_R = 3\text{ V}$	
Capacitance	$C_t$	—	10	—	pF	$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$	
Rise time	$t_r$	—	20	—	ns	$I_F = 50\text{ mA}$	
Fall time	$t_f$	—	20	—	ns	$I_F = 50\text{ mA}$	

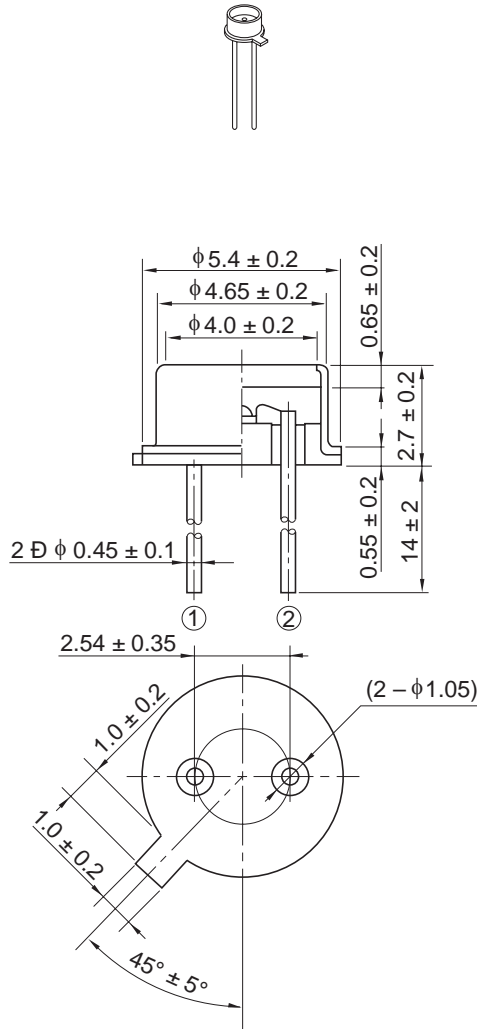
Note:  $P_f$  specification: The optical output within  $\pm 9$  degrees ( $NA=0.16$ ) of the acceptance angle.

### Typical Characteristic Curves



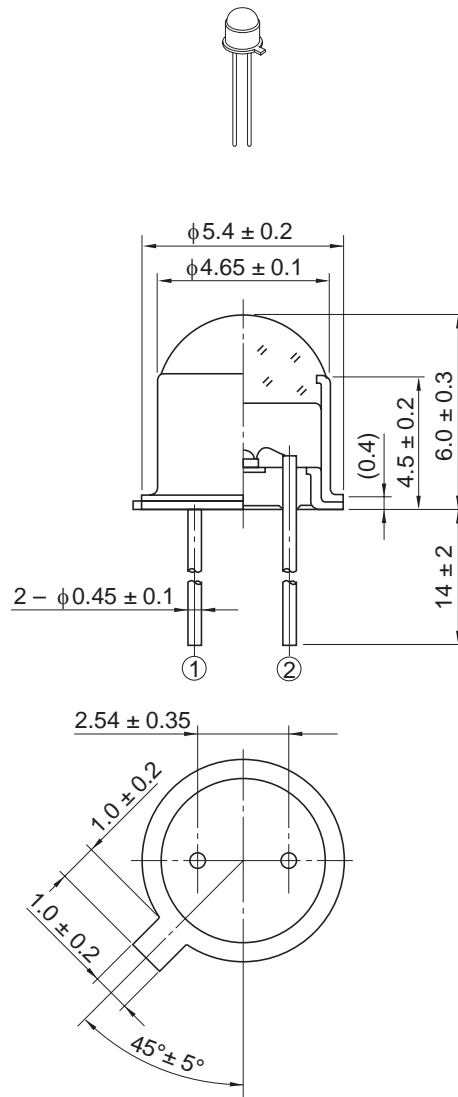
Package Dimensions

As of July, 2002  
Unit: mm



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

As of July, 2002  
Unit: mm



OPJ Code	IR/FL
JEDEC	—
JEITA	—
Mass (reference value)	0.27 g

## Cautions

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## Sales Offices



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