HE8807SG/FL

GaAlAs Infrared Emitting Diodes

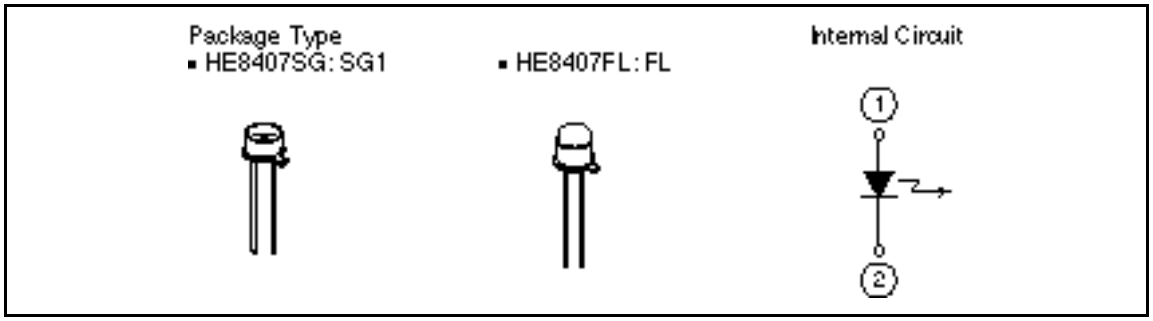
HITACHI

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°C)

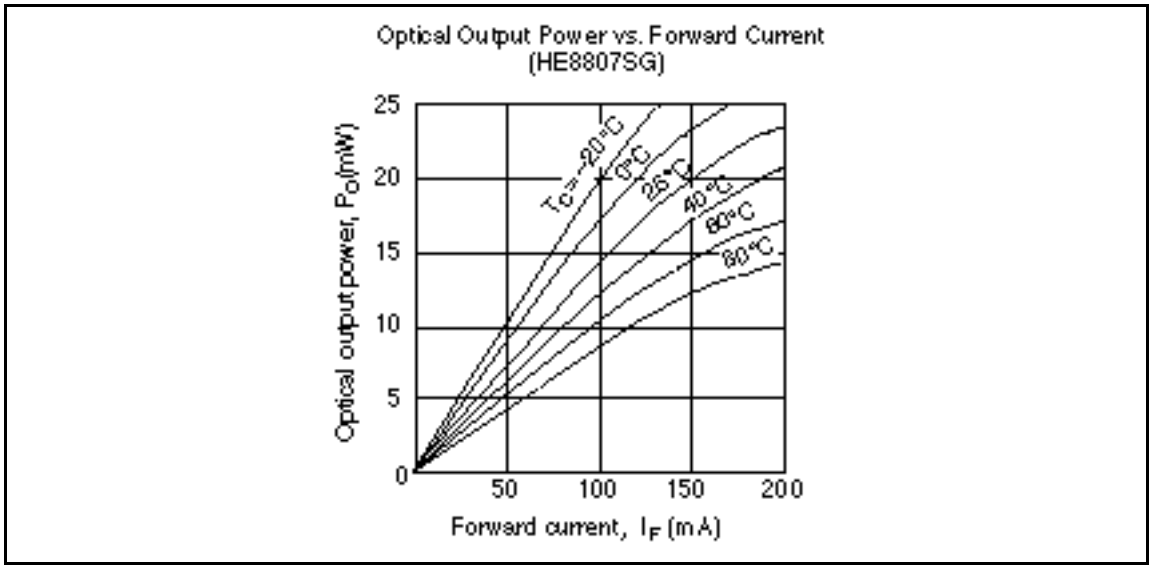
Item	Symbol	Rated Value	Units
Forward current	I_F	200	mA
Reverse voltage	V_R	3	V
Operating temperature	Topr	–20 to +85	°C
Storage temperature	Tstg	–40 to +100	°C

Optical and Electrical Characteristics (T_C = 25°C)

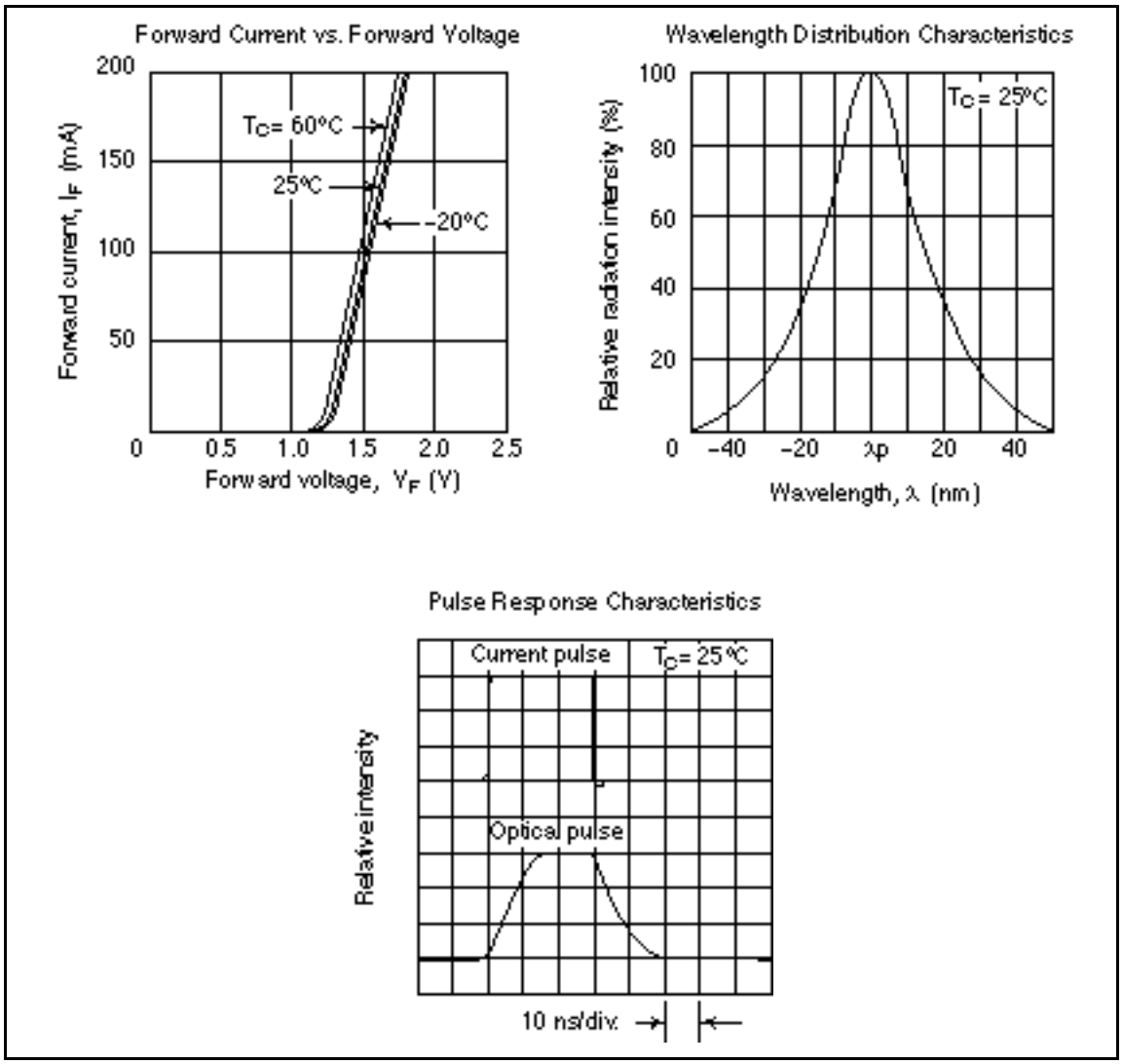
Item		Symbol	Min	Typ	Max	Units	Test Conditions
Optical output power	HE8807SG	P_O	10	20	—	mW	I_F = 150 mA
	HE8807FL	P_F*[1]	0.5	1.0	—		I_F = 20 mA
Peak wavelength		λp	800	880	900	nm	I_F = 150 mA
Spectral width		Δλ	—	30	—	nm	I_F = 150 mA
Forward voltage		V_F	—	1.7	2.3	V	I_F = 150 mA
Reverse current		I_R	—	—	100	μA	V_R = 3 V
Capacitance		Ct	—	10	—	pF	V_R = 0 V, f = 1 MHz
Rise time		tr	—	20	—	ns	I_F = 50 mA
Fall time		tf	—	20	—	ns	I_F = 50 mA

Note: 1. P_F specification: The optical output within 9 degrees of the acceptance angle.

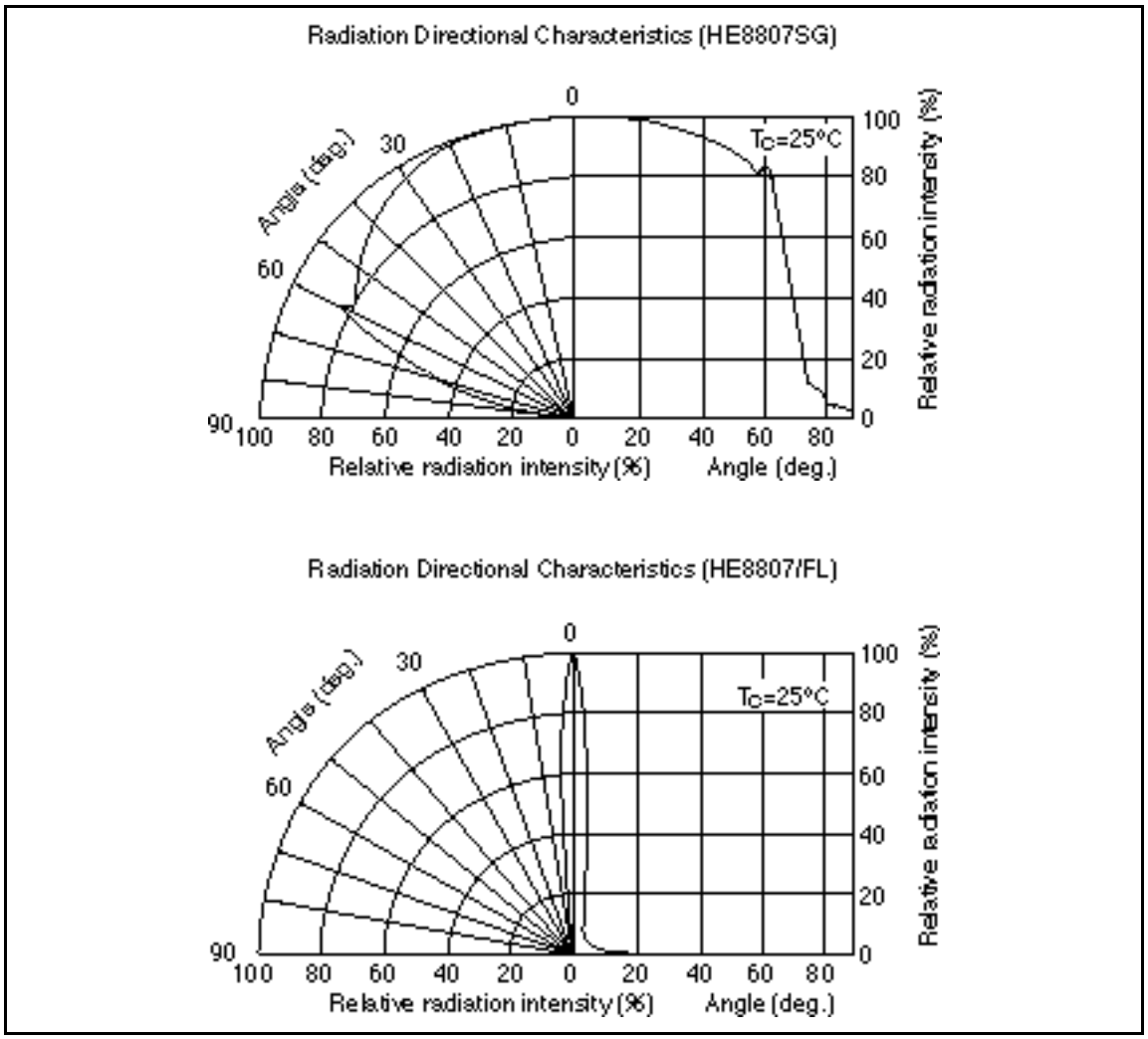
Typical Characteristic Curves



Typical Characteristic Curves (cont)



Typical Characteristic Curves (cont)



Typical Characteristic Curves (cont)