

HE8805VG

Infrared Emitting Diodes (IRED)

Description

HE8805VG is a 0.8 μm GaAlAs infrared emitting diode with single heterojunction structure.

It is suitable as a light source in autofocusing still cameras.

Hermetic sealing of the package achieves high reliability.

Features

- High efficiency and high power output
- Narrow spectral width
- Wide radiant directionality

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

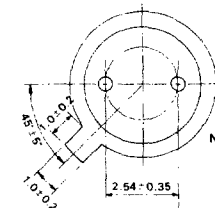
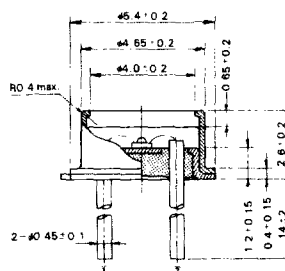
Items	Symbols	Values	Units
Forward current	I_F	200	mA
Reverse voltage	V_R	3	V
Tolerable power dissipation	P_d	300	mW
Operating temperature	T_{opr}	-20 to +60	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +90	$^\circ\text{C}$

The absolute maximum ratings are limiting values, to be applied individually, beyond which the device may be permanently damaged. Functional operation under any of these conditions is not guaranteed. Exposing a circuit to its absolute maximum rating for extended periods of time may affect the device's reliability.

Optical and Electrical Characteristics ($T_C = 25^\circ\text{C}$)

Items	Symbols	min.	typ.	max.	Units	Test conditions
Optical output power	P_O	6			mW	$I_F = 150 \text{ mA}$
Peak wavelength	λ_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	μA	$V_R = 3 \text{ V}$
Capacitance	C_i		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	$I_F = 50 \text{ mA}$

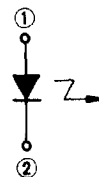
Package Dimensions

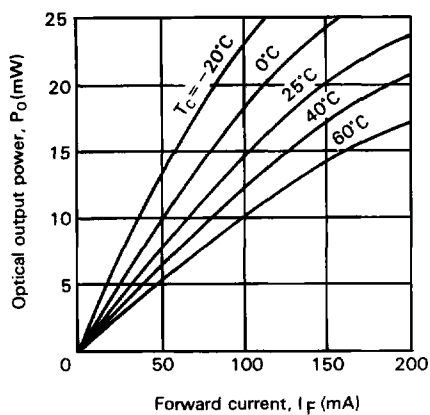
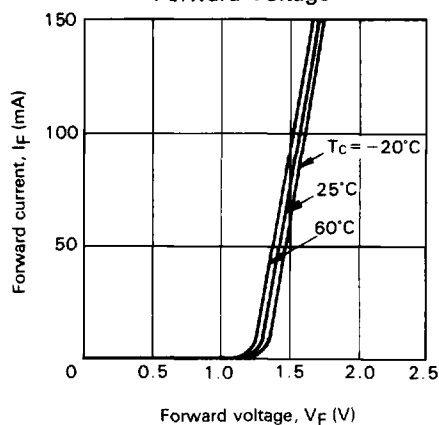


VG-type

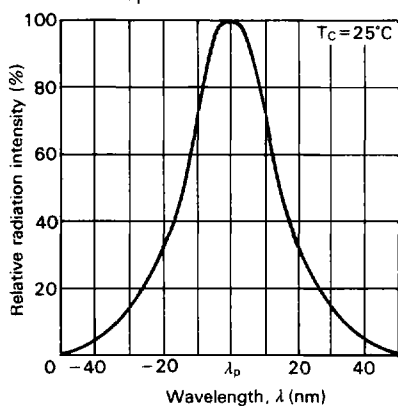
(Unit: mm)

Internal Circuit

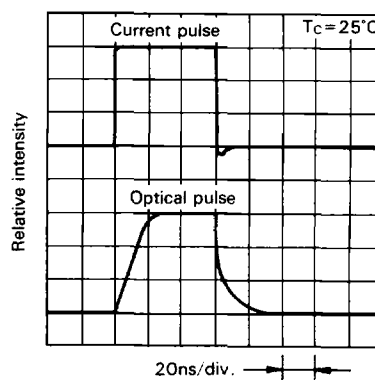


Optical Output Power vs.
Forward CurrentForward Current vs.
Forward Voltage

Spectral Distribution



Pulse Response



Radiation Pattern

