
HE8812SG

GaAlAs Infrared Emitting Diode

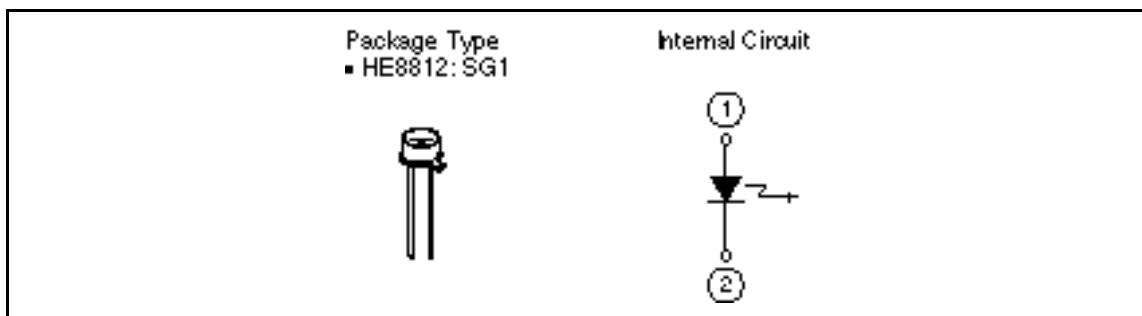
HITACHI

Description

The HE8812SG is a GaAlAs double heterojunction structure 870 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

Σ High efficiency, high output



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

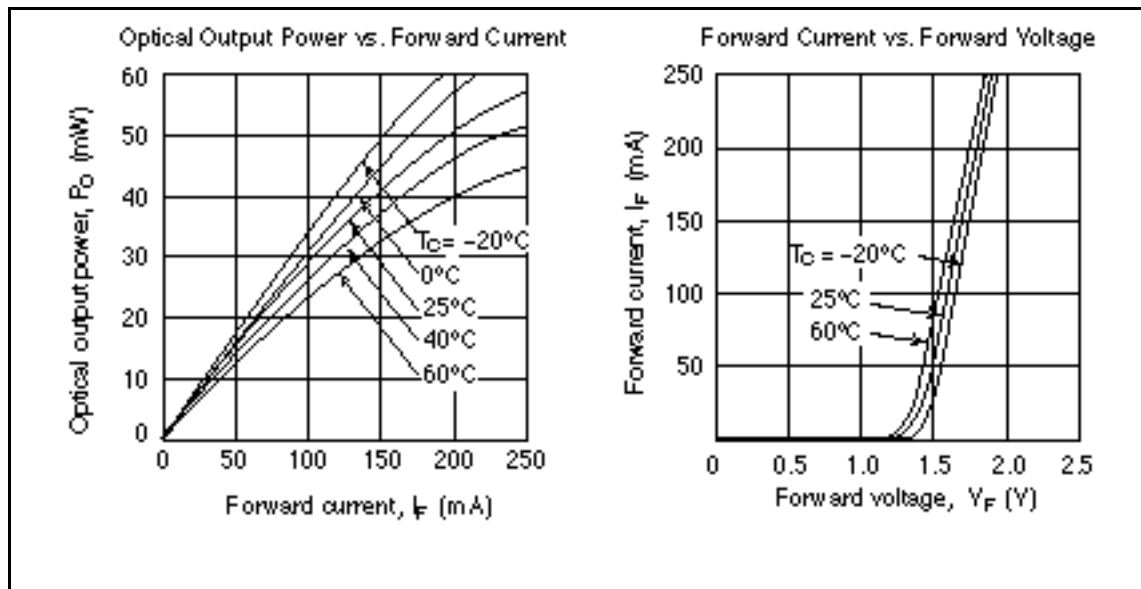
Item	Symbol	Rated Value	Units
Forward current	I_F	250	mA
Reverse voltage	V_R	3	V
Operating temperature	T_{opr}	-20 to +60	°C
Storage temperature	T_{stg}	-40 to +90	°C

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

Item	Symbol	Min	Typ	Max	Units	Test Conditions
Optical output power	P_o	40	—	—	mW	$I_F = 200\text{ mA}$
Peak wavelength	λ_p	840	870	900	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 and fall times	t_f , t_r	—	10	—	ns	$I_F = 50\text{ mA}$

Typical Characteristic Curves



Typical Characteristic Curves (cont)

