

HE8404SG

GaAlAs Infrared Emitting Diode

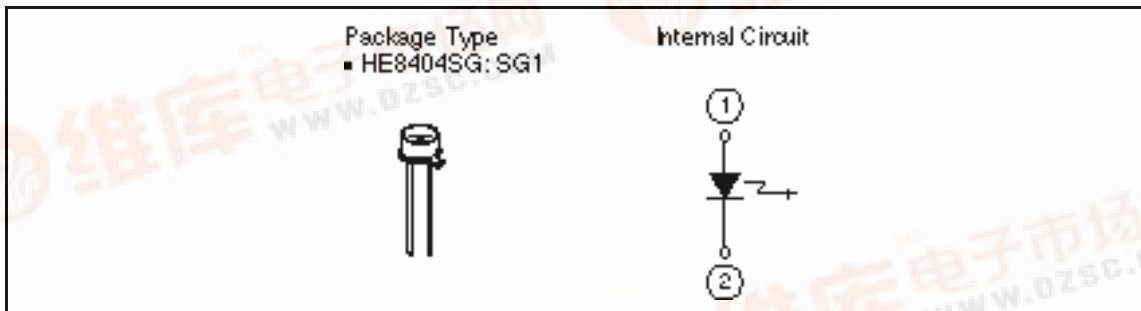
HITACHI

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, high output



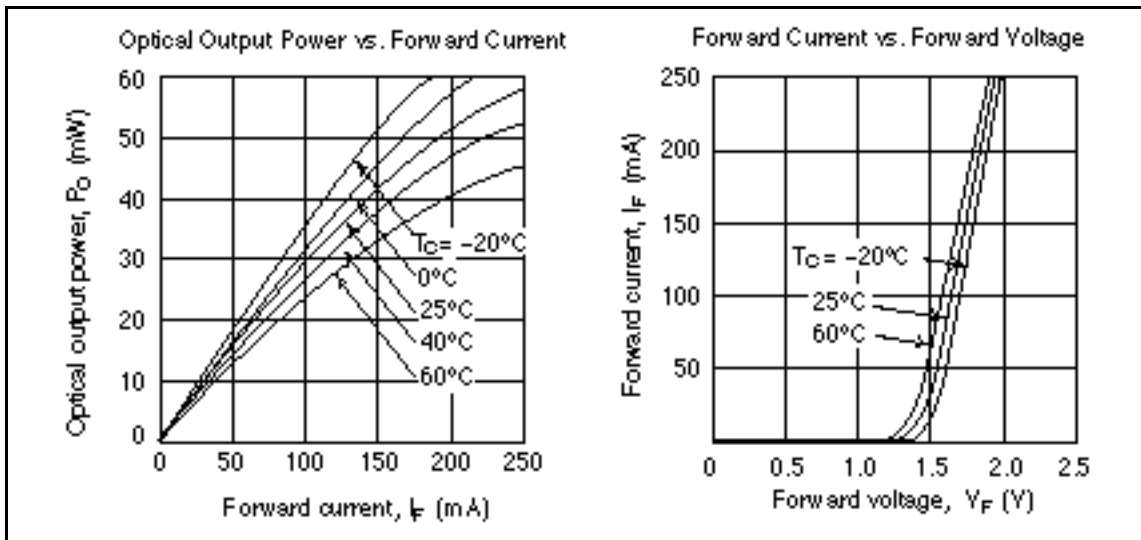
Absolute Maximum Ratings ($T_C = 25^\circ\text{C}$)

Item	Symbol	Rated Value	Units
Forward current	I_F	250	mA
Reverse voltage	V_R	3	V
Operating temperature	T_{opr}	-20 to +60	$^\circ\text{C}$
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	Units	Test Conditions
Optical output power	P_O	40	—	—	mW	$I_F = 200 \text{ mA}$
Peak wavelength	ρ	790	820	850	nm	$I_F = 200 \text{ mA}$
Spectral width		—	50	—	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 time	t_r, t_f	—	10	—	ns	$I_F = 50 \text{ mA}$

Typical Characteristic Curves



HE8404SG

Typical Characteristic Curves (cont)

