

HE7601SG

GaAlAs Infrared Emitting Diode

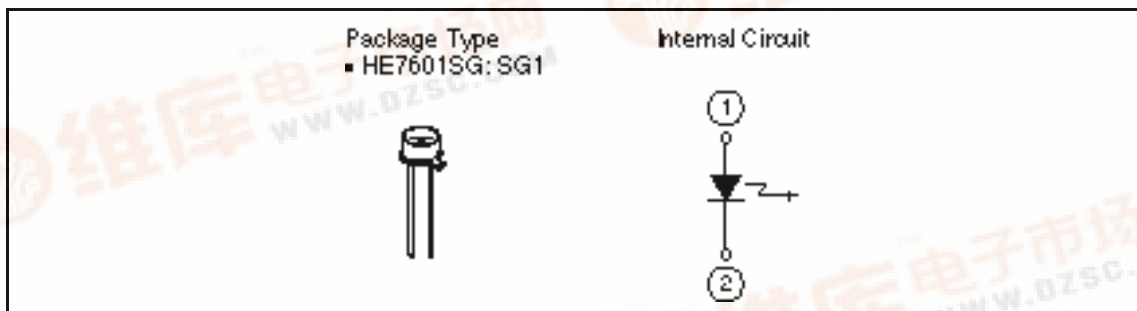
HITACHI

Description

The HE7601SG is a 770 nm band GaAlAs infrared emitting diode with a double heterojunction structure. It is suitable as a light source for optical control devices and sensors.

Features

Σ High efficiency and high output power



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

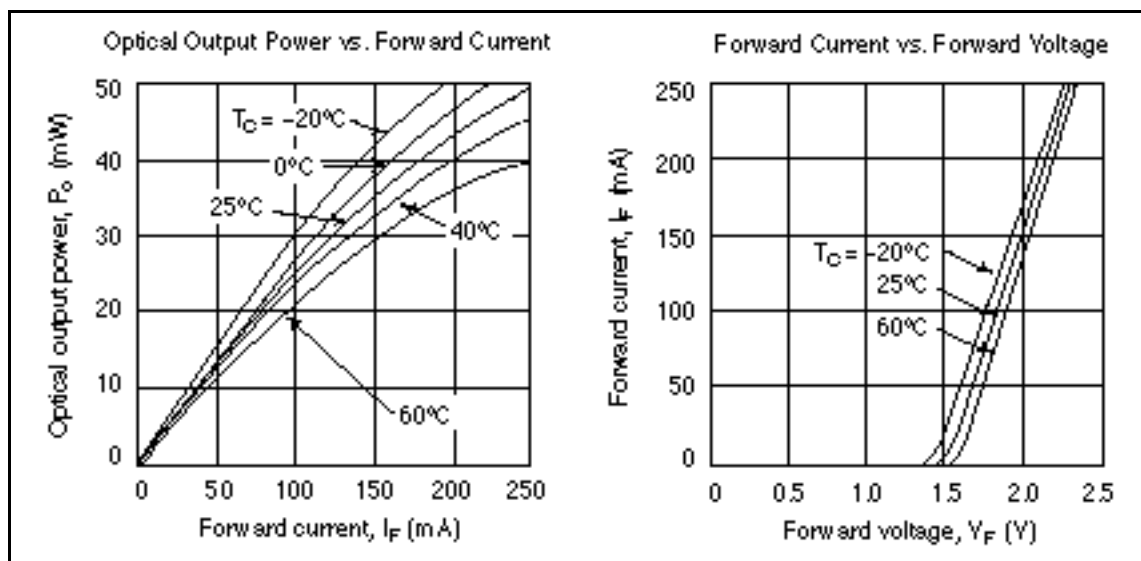
Item	Symbol	Rated Value	Units
Forward current	I_F	250	mA
Reverse voltage	V_R	3	V
Operating temperature	T_{opr}	-20 to +60	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +90	$^\circ\text{C}$

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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	30	—	—	mW	$I_F = 200 \text{ mA}$
Peak wavelength	λ_p	740	770	800	nm	$I_F = 200 \text{ mA}$
Spectral width	$\Delta\lambda$	—	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



Typical Characteristic Curves (cont)

