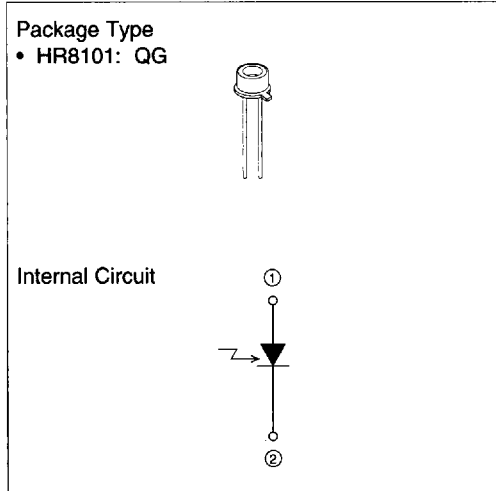


Description

The HR8101 is a Si PIN photodiode which responds to a 0.6 to 0.9 μm band. It is suitable as an optical detector for all types of optical application equipment, including measurement and communications.

Features

- High speed pulse response: $t_r, t_f = 30 \text{ ns, typ.}$
- Effective reception area: 0.8 by 0.8 mm.



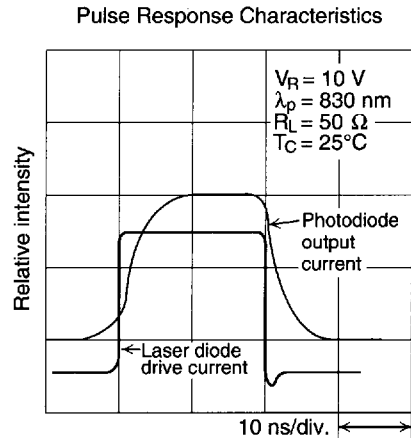
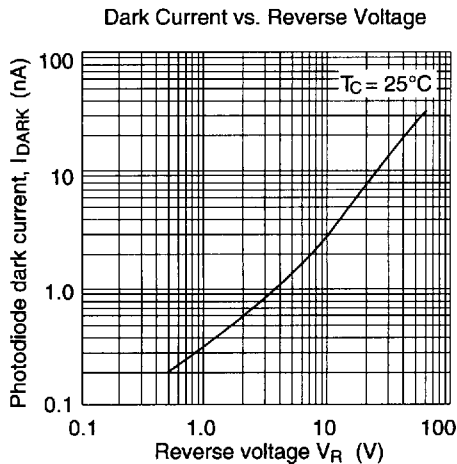
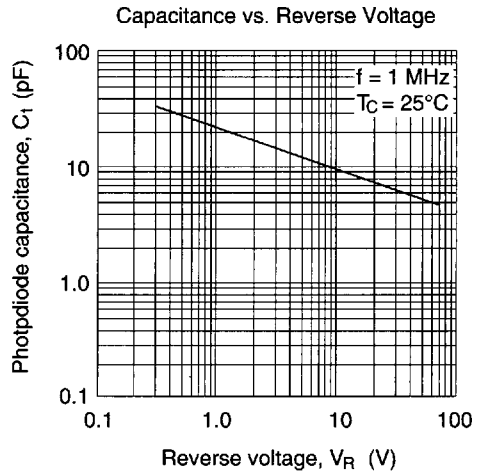
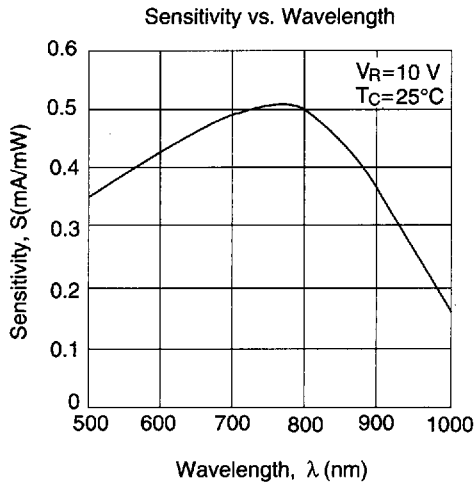
Absolute Maximum Ratings ($T_C = 25^\circ\text{C}$)

Item	Symbol	Rated Value	Units
Reverse voltage	V_R	100	V
Forward current	I_F	100	mA
Operating temperature	T_{opr}	-40 to +80	$^\circ\text{C}$
Storage temperature	T_{stg}	-45 to +100	$^\circ\text{C}$

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

Item	Symbol	Min	Typ	Max	Units	Test Conditions
Dark current	I_{DARK}	—	2	10	nA	$V_R = 10 \text{ V}$
Capacitance	C_t	—	10	15	pF	$V_R = 10 \text{ V}, f = 1 \text{ MHz}$
Sensitivity	S	0.4	—	—	mA/mW	$V_R = 10 \text{ V}, \lambda_p = 830 \text{ nm}$
Rise time	t_r	—	30	—	ns	$V_R = 10 \text{ V}, \lambda_p = 830 \text{ nm}$ $R_L = 50 \Omega$
Fall time	t_f	—	30	—	ns	$V_R = 10 \text{ V}, \lambda_p = 830 \text{ nm}$ $R_L = 50 \Omega$

Typical Characteristic Curves



4496205 0014444 879

Part

314

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