

InGaAs PIN photodiode

G9801 series

Receptacle type, 1.3/1.55 μ m, 2GHz

FEATURES

- Replacement of G8194 series.
- Mount & connector type: SC-board, FC-board, FC-panel receptacles are available.
- High speed response: typ. $f_c = 2\text{GHz}$
- Low dark current: typ. 20pA
- High photo sensitivity: typ. 0.9A/W (at $\lambda=1310\text{nm}$)

GENERAL RATINGS

Type No.	G9801-21	G9801-22	G9801-32
Mount type	board		panel
Connector type	SC	FC	FC
Dimensional outline	Fig.1	Fig.2	Fig.3

ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Parameter	Symbol	Value	Unit
Maximum Reverse Voltage	V_{RMax}	20	V
Operating Temperature	T_{opr}	-20 to +70	°C
Storage Temperature	T_{stg}	-40 to +85	°C

ELECTRICAL AND OPTICAL CHARACTERISTICS

(Unless Otherwise Noted, Typ.Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral Response Range	λ		--	900 to 1700	--	nm
Peak Sensitivity Wavelength	λ_p		--	1550	--	nm
Photo Sensitivity	S	$\lambda=1310\text{nm}$	0.75	0.9	--	A/W
		$\lambda=1550\text{nm}$	0.8	0.95	--	
Dark Current	I_D	$V_R=5\text{V}$	--	0.02	0.4	nA
Cut-off Frequency	f_c	$\lambda=1310\text{nm}$, $R_L=50\Omega$, -3dB, $V_R=5\text{V}$	--	2.0	--	GHz
Terminal Capacitance	C_t	$V_R=5\text{V}$, $f=1\text{MHz}$	--	1.0	1.5	pF
Noise Equivalent Power	NEP	$V_R=5\text{V}$, $\lambda=1550\text{nm}$	--	3×10^{-15}	--	$\text{W}/\sqrt{\text{Hz}}$

DIMENSIONAL OUTLINE

Unit:mm, Unless otherwise specified: ± 0.2

Fig.1 G9801-21 (Mount type:board, Connector type:SC)

PIN CONNECTION

- #1 Anode
- #2 Cathode
- #3 Case

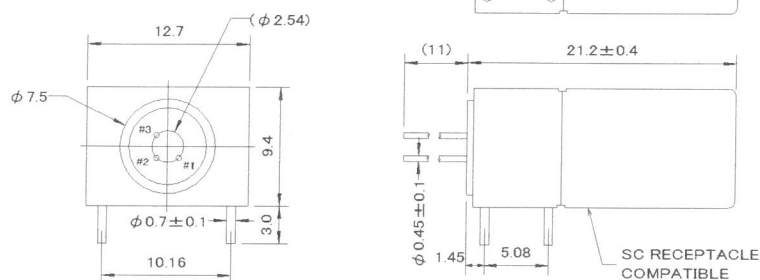


Fig.2 G9801-22 (Mount type:board, Connector type:FC)

PIN CONNECTION

- #1 Anode
- #2 Cathode
- #3 Case

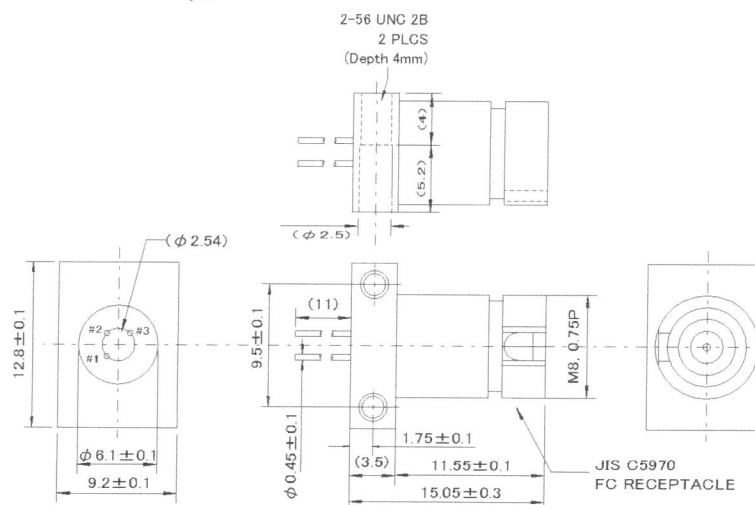


Fig.3 G9801-32 (Mount type:panel, Connector type:FC)

PIN CONNECTION

- #1 Anode
- #2 Cathode
- #3 Case

