

Description

The RCV5707AH is a lightwave receiver for OC-12.

Features

- Complied with SONET/SDH standard
- InGaAs APD
- Operation at 622.08Mb/s for 1.3 μm or 1.55 μm wavelength
- Wide dynamic range: 25 dB
- 50 Ω , AC-coupled interface
- Clock recovery using SAW filter
- Loss-of-signal (LOS) indicator and photo-current monitors



Absolute Maximum Ratings

Item	Symbol	Rated Value	Units
Operating case temperature	T_{opr}	-20 to 85	$^{\circ}\text{C}$
Storage case temperature	T_{stg}	-40 to 85	$^{\circ}\text{C}$
Supply voltages	V_{CC}	6.0	V
	V_{EE}	-6.0	
Lead soldering temperature	T_s	250	$^{\circ}\text{C}$
Lead soldering time	—	10	sec

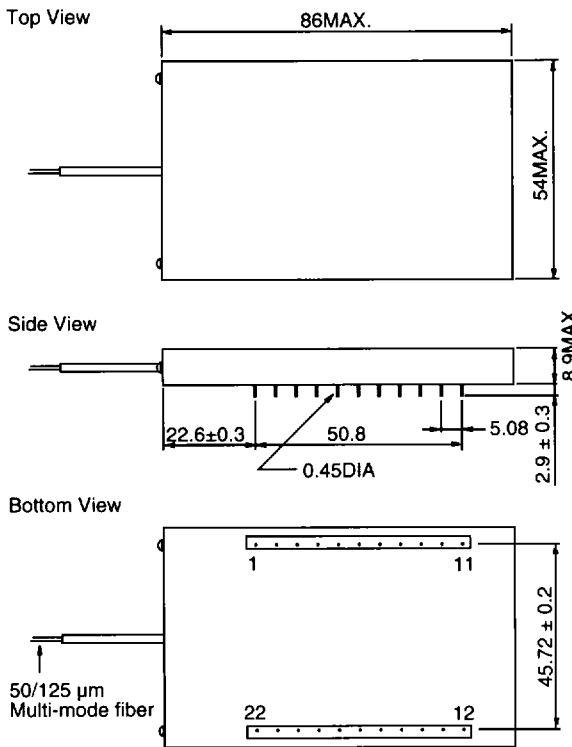
Optical Characteristics $(T_a = -20 \text{ to } 85^{\circ}\text{C})$

Item	Symbol	Min	Typ	Max	Units	Test Conditions
Minimum received power	P_{inmin}	—	-34	-33	dBm	$2^{23} - 1$ NRZ, 10^{-10} BER
Maximum received power	P_{inmax}	-8	-7	—	dBm	$2^{23} - 1$ NRZ, 10^{-10} BER

Electrical Characteristics ($T_a = -20$ to 85°C)

Item	Symbol	Min	Typ	Max	Units	Test Conditions
DC power supply voltage	V_{CC}	4.75	5.0	5.25	V	
	V_{EE}	-4.94	-5.2	-5.46		
DC power supply current	I_{CC}	—	—	200	mA	$V_{CC} = 5.0$ V
	I_{EE}	—	—	360		$V_{EE} = -5.2$ V
Output rise and fall times	t_r, t_f	—	—	700	ps	10 to 90%
Clock and data amplitude	—	600	—	1000	mVpp	50Ω load
Timing jitter (RMS)	—	—	—	2	deg	$2^{23} - 1$ NRZ

Outline Drawings and Pin Descriptions



Pin	Description
1:	Ground
2:	LOS Indicator *
3:	Ground
4:	Photocurrent Monitor
5:	Ground
6:	Data Out
7:	Ground
8:	No User Connection
9:	Ground
10:	Clock Out
11:	Ground
12:	Ground
13:	No User Connection
14:	Ground
15:	-5.2V
16:	Ground
17:	No User Connection
18:	Ground
19:	+5.0V
20:	Ground
21:	No User Connection
22:	No User Connection

* LOS Indicator goes to CMOS high level at the absence of optical signal input.

Tolerance: ±0.2 mm
Dimension: mm

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Part
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