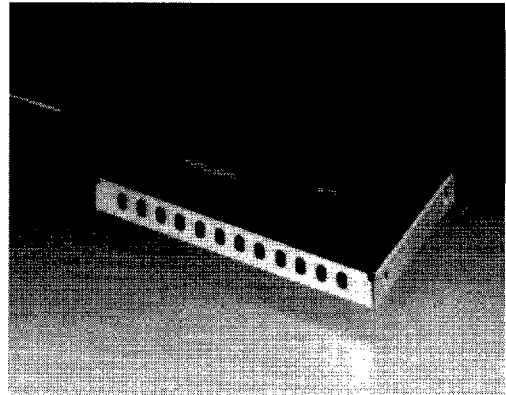


Description

The RCV5703AN is a lightwave receiver for OC-12.

Features

- Complied with SONET/SDH standard
- InGaAs PIN-PD
- Operation at 622.08Mb/s for 1.3 μm or 1.55 μm wavelength
- Wide dynamic range: 18 dB
- ECL 10k 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}	0 to 65	$^{\circ}\text{C}$
Storage case temperature	T_{stg}	-20 to 75	$^{\circ}\text{C}$
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 $(T_a = 25^{\circ}\text{C}, \lambda = 1.3 \mu\text{m})$

Item	Symbol	Min	Typ	Max	Units	Test Conditions
Minimum received power	P_{inmin}	—	-28	-27	dBm	$2^{23} - 1$ NRZ, 10^{-10} BER
Maximum received power	P_{inmax}	-6	-5	—	dBm	$2^{23} - 1$ NRZ, 10^{-10} BER

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Part

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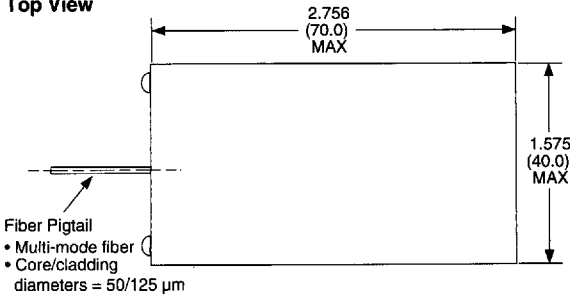
Hitachi America, Ltd. • 2000 Sierra Point Pkwy. • Brisbane, CA 94005-1835 • (415) 589-8300

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

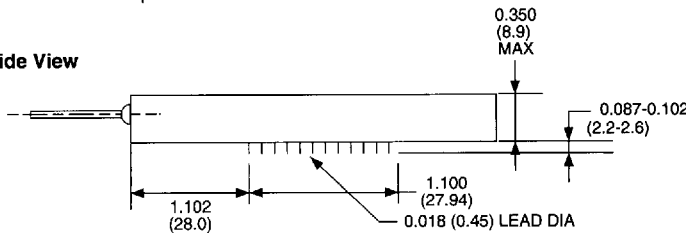
Item	Symbol	Min	Typ	Max	Units	Test Conditions
DC power supply voltage	V_{CC}	4.75	5.0	5.25	V	
	V_{EE}	-4.94	-5.2	-5.46		
DC power supply current	I_{CC}	—	—	50	mA	$V_{CC} = 5.0\text{ V}$
	I_{EE}	—	—	250		$V_{EE} = -5.2\text{ V}$
Output rise and fall times	t_r, t_f	—	—	500	ps	10 to 90%
Timing jitter (RMS)	—	—	—	2	deg	$2^{23} - 1\text{ NRZ}$

Outline Drawings and Pin Descriptions

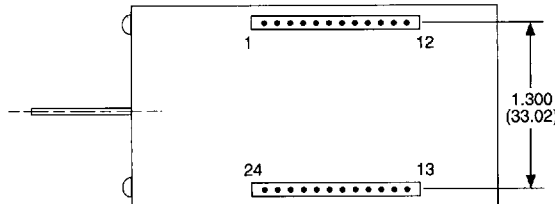
Top View



Side View



Bottom View



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

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

Tolerance: $\pm 0.012\text{ in. } (\pm 0.3\text{ mm})$
 Dimension: inch (mm)