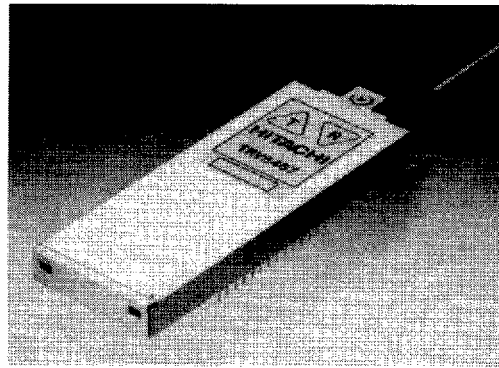


**Description**

The TRV5367 is a lightwave transceiver for OC-1.

**Features**

- Fabry-Perot laser/Ge APD
- Operation at 51.84Mb/s for 1.3 μm wavelength
- ECL 10k interface
- Clock recovery using SAW filter
- TX: Low-power alarm and shutdown  
RX: Loss-of-signal (LOS) indicator



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

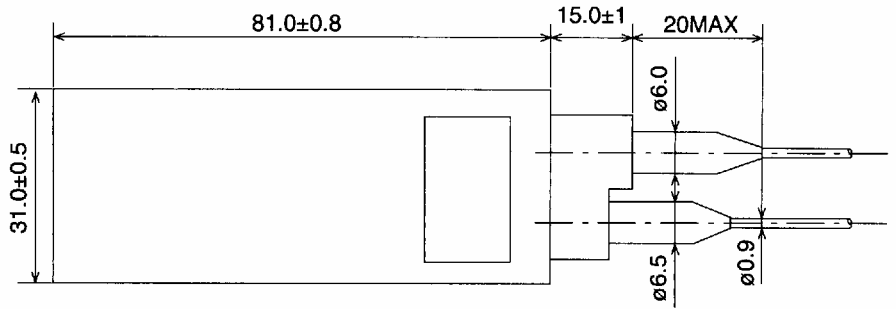
Item	Symbol	Rated Value	Units
Operating case temperature	$T_{opr}$	10 to 60	$^\circ\text{C}$
Storage case temperature	$T_{stg}$	-40 to 80	$^\circ\text{C}$
Supply voltages	$V_{CC}$	6.0	V
	$V_{EE}$	-5.75	
Lead soldering temperature	$T_s$	250	$^\circ\text{C}$
Lead soldering time	—	10	sec

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

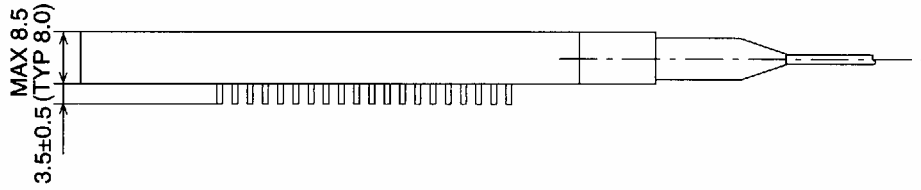
Item	Symbol	Min	Typ	Max	Units	Test Conditions
Average power output	$P_O$	-3	0	3	dBm	$T_C = 10$ to $60^\circ\text{C}$
Center wavelength	$\lambda_c$	1290	1310	1330	nm	$T_C = 10$ to $60^\circ\text{C}$
Spectral width	$\Delta\lambda$	—	—	10	nm	FWHM
Extinction ratio	—	13	—	—	dB	$P_{OH} / P_{OL}$
Optical eye pattern mask	—	—	—	—	—	CCITT
Minimum received power	$P_{inmin}$	—	-36	-35	dBm	$2^{23} - 1$ NRZ, $10^{-11}$ BER
Maximum received power	$P_{inmax}$	-17	-16	—	dBm	$2^{23} - 1$ NRZ, $10^{-11}$ BER
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	$I_{CC}$	—	—	30	mA	$V_{CC} = 5.0$ V
	$I_{EE}$	—	—	400		$V_{EE} = -5.2$ V
Output rise and fall times	$t_r, t_f$	—	—	1.9	ns	20 to 80%
Timing jitter (RMS)	—	—	—	2	deg	$2^{23} - 1$ NRZ

Outline Drawings and Pin Descriptions

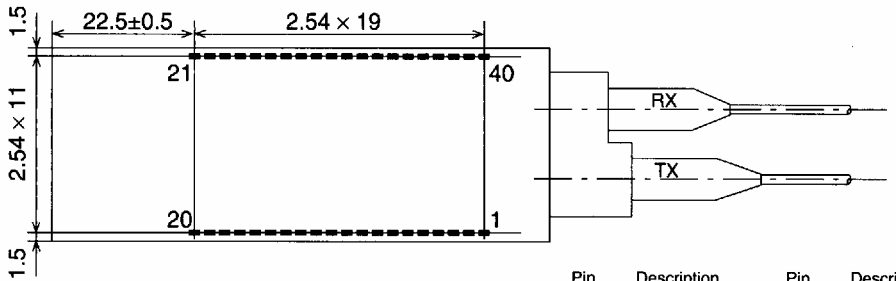
Top View



Side View



Bottom View



Fiber pigtail

• TX side

- Single-mode fiber
- Core/cladding diameter = 10/125  $\mu$ m

• RX side

- Multi-mode fiber
- Core/cladding diameter = 50/125  $\mu$ m

Dimension: mm

Pin	Description	Pin	Description
1:	TX Ground	21:	RX Ground
2:	TX Ground	22:	RX VEE2
3:	TX VEE1	23:	Data Out
4:	TX Alarm Out	24:	Data Out
5:	Clock In	25:	RX Alarm Out
6:	Data In	26:	RX Ground
7:	Shutdown In	27:	RX Ground
8:	RX VEE2	28:	RX Ground
9:	RX Ground	29:	RX Ground
10:	RX Ground	30:	RX VEE2
11:	RX Ground	31:	RX VEE2
12:	RX Ground	32:	RX Ground
13:	RX Ground	33:	RX Ground
14:	RX Ground	34:	RX Ground
15:	RX Ground	35:	RX Ground
16:	RX VEE2	36:	RX Ground
17:	Clock Out	37:	VCC
18:	Clock Out	38:	RX Ground
19:	RX Ground	39:	VEE3
20:	RX VEE2	40:	VEE3