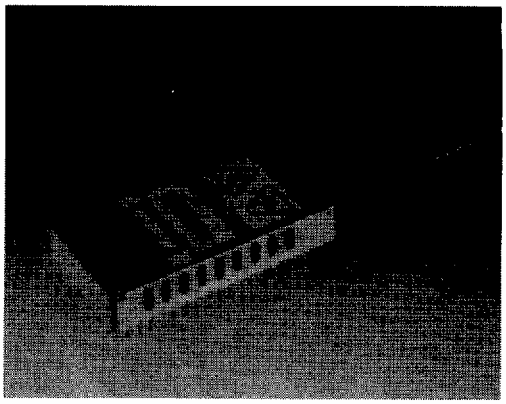
TRV5366 OC-1 Transceiver

Description

The TRV5366 is a lightwave transceiver for OC-1.

Features

- Fabry-Perot laser/InGaAs PIN-PD
- 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°C)

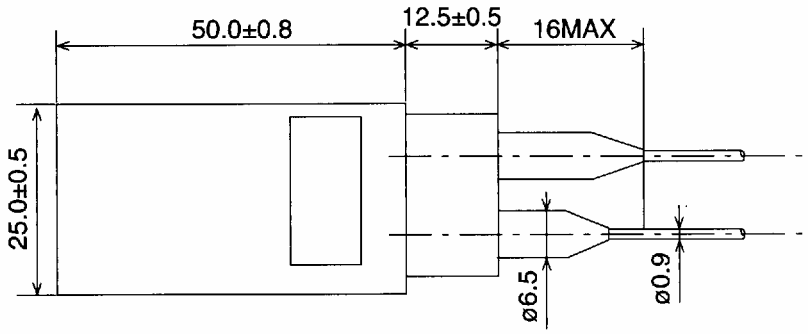
Item	Symbol	Rated Value	Units
Operating case temperature	T_{opr}	10 to 60	°C
Storage case temperature	T_{stg}	–40 to 80	°C
Supply voltages	V_{CC}	6.0	V
	V_{EE}	–5.75	
Lead soldering temperature	T_s	250	°C
Lead soldering time	—	10	sec

Optical and Electrical Characteristics (T_C = 25°C)

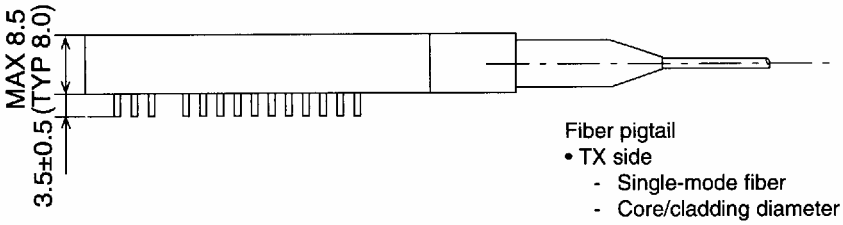
Item	Symbol	Min	Typ	Max	Units	Test Conditions
Average power output	$\overline{P_O}$	–15	—	–8	dBm	T_C = 10 to 60°C
Center wavelength	λ_c	1270	1310	1360	nm	T_C = 10 to 60°C
Spectral width	$\Delta\lambda$	—	—	10	nm	FWHM
Extinction ratio	—	11	—	—	dB	P_{OH} / P_{OL}
Optical eye pattern mask	—	—	—	—	—	CCITT
Minimum received power	P_{inmin}	—	–25	–24	dBm	2^{23} – 1 NRZ, 10^{-11} BER
Maximum received power	P_{inmax}	–8	–7	—	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}	—	—	350		V_{EE} = –5.2 V
Output rise and fall times	t_r, t_f	—	—	1.9	ns	20 to 80%

Outline Drawings and Pin Descriptions

Top View

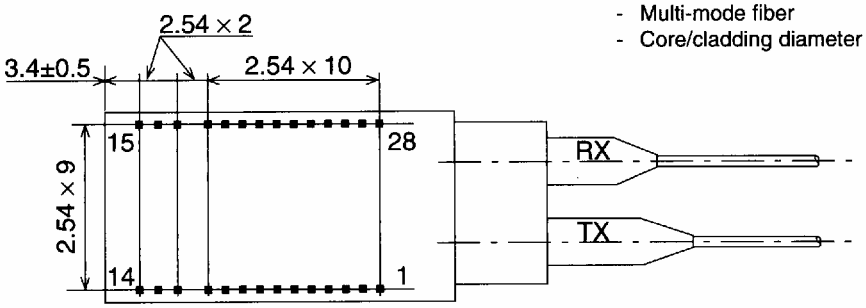


Side View



Fiber pigtail
- TX side
  - Single-mode fiber
  - Core/cladding diameter = 10/125 µm
- RX side
  - Multi-mode fiber
  - Core/cladding diameter = 50/125 µm

Bottom View



Pin	Description	Pin	Description
1:	TX Ground	15:	Data Out
2:	TX Ground	16:	Data Out
3:	TX V_{EE1}	17:	RX Ground
4:	TX Alarm Out	18:	RX Alarm Out
5:	Clock In	19:	RX V_{EE2}
6:	Data In	20:	RX V_{EE2}
7:	Shutdown In	21:	RX Ground
8:	RX V_{EE2}	22:	RX Ground
9:	RX Ground	23:	RX Ground
10:	RX Ground	24:	RX Ground
11:	RX V_{EE2}	25:	V_{CC}
12:	RX V_{EE2}	26:	RX Ground
13:	$\overline{\text{Clock Out}}$	27:	V_{EE3}
14:	Clock Out	28:	V_{EE3}

Dimension: mm

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