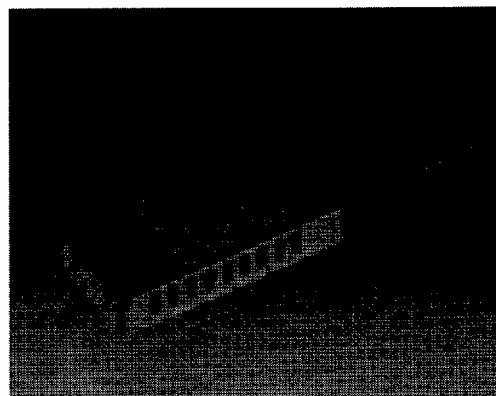


## Description

The TRV5466 is a lightwave transceiver for OC-3.

## Features

- Complied with SDH standard
- Fabry-Perot laser/InGaAs PIN-PD
- Operation at 155.52Mb/s for 1.3  $\mu\text{m}$  wavelength
- ECL 10k interface
- Clock recovery using SAW filter
- TX: Low-power alarm and shutdown  
RX: Loss-of-signal (LOS) indicator



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

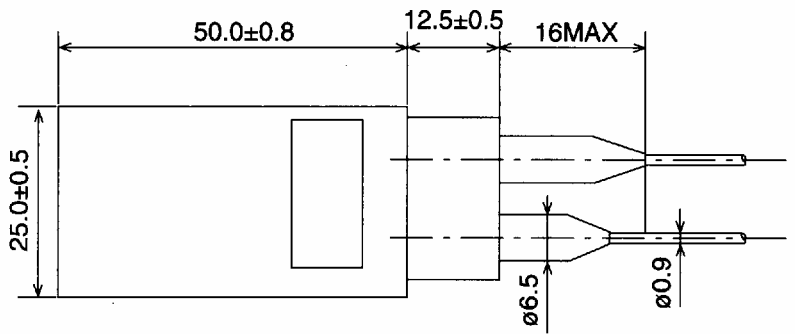
Item	Symbol	Rated Value	Units
Operating case temperature	$T_{opr}$	10 to 60	$^\circ\text{C}$
Storage case temperature	$T_{stg}$	-40 to 80	$^\circ\text{C}$
Supply voltages	$V_{CC}$	6.0	V
	$V_{EE}$	-5.75	
Lead soldering temperature	$T_s$	250	$^\circ\text{C}$
Lead soldering time	—	10	sec

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

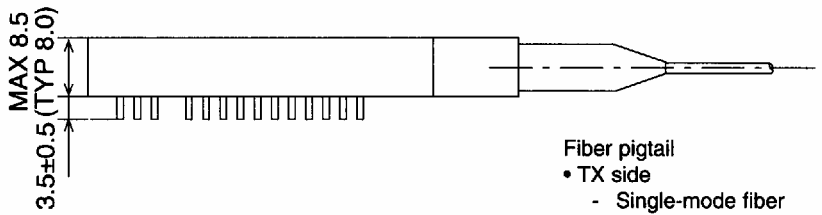
Item	Symbol	Min	Typ	Max	Units	Test Conditions
Average power output	$\overline{P_O}$	-15	—	-8	dBm	$T_C = 10$ to $60^\circ\text{C}$
Center wavelength	$\lambda_c$	1270	1310	1360	nm	$T_C = 10$ to $60^\circ\text{C}$
Spectral width	$\Delta\lambda$	—	—	10	nm	FWHM
Extinction ratio	—	11	—	—	dB	$P_{OH} / P_{OL}$
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



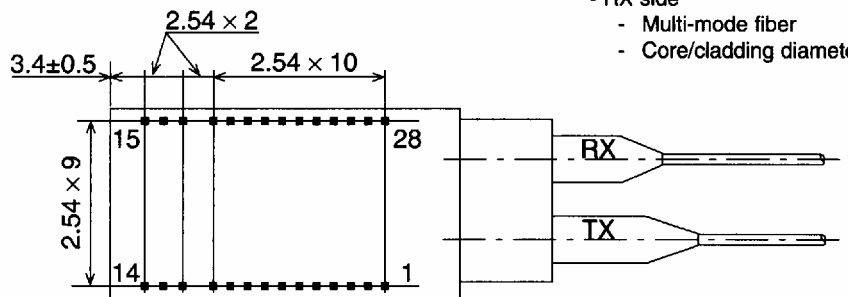
Side View



Fiber pigtail

- TX side
  - Single-mode fiber
  - Core/cladding diameter = 10/125 μm

Bottom View



- RX side
  - Multi-mode fiber
  - Core/cladding diameter = 50/125 μm

2

Dimension: mm

Pin	Description	Pin	Description
1:	TX Ground	15:	Data Out
2:	TX Ground	16:	Data Out
3:	TX V <sub>EE1</sub>	17:	RX Ground
4:	TX Alarm Out	18:	RX Alarm Out
5:	Clock In	19:	RX V <sub>EE2</sub>
6:	Data In	20:	RX V <sub>EE2</sub>
7:	Shutdown In	21:	RX Ground
8:	RX V <sub>EE2</sub>	22:	RX Ground
9:	RX Ground	23:	RX Ground
10:	RX Ground	24:	RX Ground
11:	RX V <sub>EE2</sub>	25:	V <sub>CC</sub>
12:	RX V <sub>EE2</sub>	26:	RX Ground
13:	Clock Out	27:	V <sub>EE3</sub>
14:	Clock Out	28:	V <sub>EE3</sub>