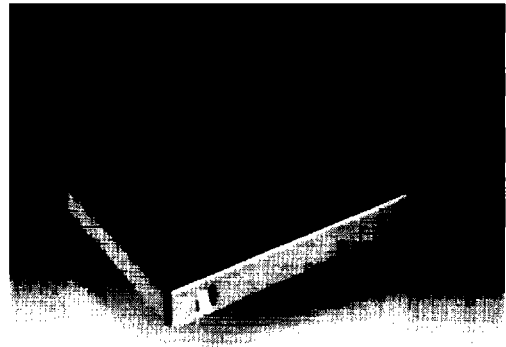


Description

The TRM5714AN is a lightwave transmitter for OC-12.

Features

- Complied with SONET/SDH standard
- Fabry-Perot laser diode
- Operation from 1Mb/s to 622.08Mb/s at 1.3 μm wavelength
- ECL 10k interface
- Low-power-alarm and performance monitors
- Low power dissipation ≤ 2 W



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

Item	Symbol	Rated Value	Units
Operating case temperature	T_{opr}	0 to 65	$^\circ\text{C}$
Storage case temperature	T_{stg}	-20 to 75	$^\circ\text{C}$
Humidity (long-term)	—	55	%
Lead soldering temperature	T_s	250	$^\circ\text{C}$
Lead soldering time	—	10	sec

Optical Characteristics (Unless otherwise indicated, measurement conditions are $T_C = 25^\circ\text{C}$, 50% duty-cycle data signal)

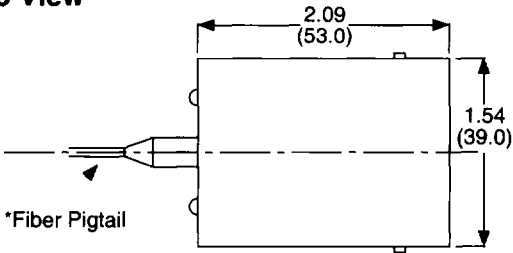
Item	Symbol	Min	Typ	Max	Units	Test Conditions
Average power output	P_O	-14.0	-11.5	-9.0	dBm	156Mb/s, 622Mb/s $T_C = 0$ to 65°C
Center wavelength	λ_c	1260	1310	1360	nm	156Mb/s, 622Mb/s $T_C = 0$ to 65°C
RMS spectral width	$\Delta\lambda$	—	2.0	8.0	nm	
Extinction ratio	—	8.2	—	—	dB	P_{OH} / P_{OL}
Optical rise and fall times	t_r, t_f	—	—	0.5	ns	10 to 90% (50% duty cycle)

Electrical Characteristics (Unless otherwise indicated, measurement conditions are $T_C = 25^\circ\text{C}$, 50% duty-cycle data signal)

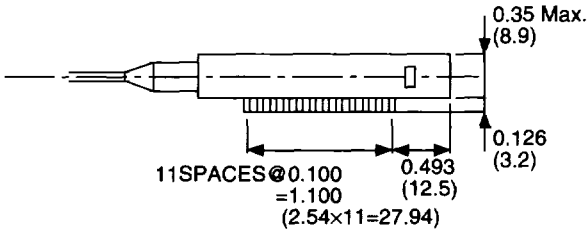
Item	Symbol	Min	Typ	Max	Units	Test Conditions
DC power supply voltage	V_{CC}	4.75	5.0	5.25	V	
	V_{EE}	-4.95	-5.2	-5.45		
DC power supply current	I_{CC}	—	—	100	mA	$V_{CC} = 5.0\text{ V} \pm 5\%$
	I_{EE}	—	—	250		$V_{EE} = -5.2\text{ V} \pm 5\%$

Outline Drawings and Pin Descriptions

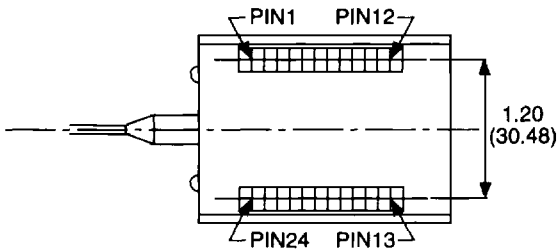
Top View



Side View



Bottom View



Pin	Description
1:	Case Ground (RF ground)
2:	Case Ground (RF ground)
3:	V_{EE}
4:	Case Ground (RF ground)
5:	V_{CC}
6:	Case Ground (RF ground)
7:	DATA (ECL 10K Level)
8:	DATA (ECL 10K Level)
9:	Case Ground (RF ground)
10:	Case Ground (RF ground)
11:	Case Ground (RF ground)
12:	Case Ground (RF ground)
13:	Case Ground (RF ground)
14:	Laser Bias Monitor (+)
15:	Laser Bias Monitor (-)
16:	Laser Backface Monitor (+)
17:	Laser Backface Monitor (-)
18:	Disable
19:	Case Ground (RF ground)
20:	Alarm Output
21:	Case Ground (RF ground)
22:	Case Ground (RF ground)
23:	Case Ground (RF ground)
24:	Case Ground (RF ground)



Fiber pigtail
 • Single-mode fiber
 • Core/cladding diameters = 10/125 μm
 Dimension: inch (mm)