

Compact Sonet OC-24 PIN-Transimpedance Amplifier Optical Receiver Modules

Features

- InGaAs PIN Photodiode and GaAs Transimpedance Amplifier
- Meets Sonet sensitivity and overload requirements
- Automatic gain control
- Integrated 4-pin package
- Connector receptacle and fiber pigtailed versions

Applications

- Sonet receivers
Add/Drop Multiplexers
Digital Crossconnects
Test Equipment
- Fiber Channel receivers
- Digital video
- Fiber optic receivers from 10 Mbps to 1.5 Gbps

Preliminary Performance Specifications

AC/Optical Electrical Characteristics

($V_{DD} = 5.0V$, $T_A = 25^\circ C$, $R_L = 50\Omega$)

Package	FJS			RST, RFC, RSC			
Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Gain ¹	0.75	1.2		0.7	1.0		V/mW
Bandwidth	850	1000		850	1000		MHz
Sensitivity ²	-28.0	-29.5		-27.5	-29.0		dBm
Overload	-3	0		-3	0		dBm
AGC Threshold Power		100			100		μW
AGC Time Constant		5.6			5.6		μs
Output Impedance		50			50		Ω

Maximum Ratings

Parameter	Rating	Units
Supply Voltage V_{dd}	7.0	V
Detector Voltage V_{pd}	-25.0	V
Optical Input Power ³	2.0	mW
Operating Temp. T_A	-40 / +85	$^\circ C$
Storage Temp.	-40 / +85	$^\circ C$

DC / Electrical Characteristics

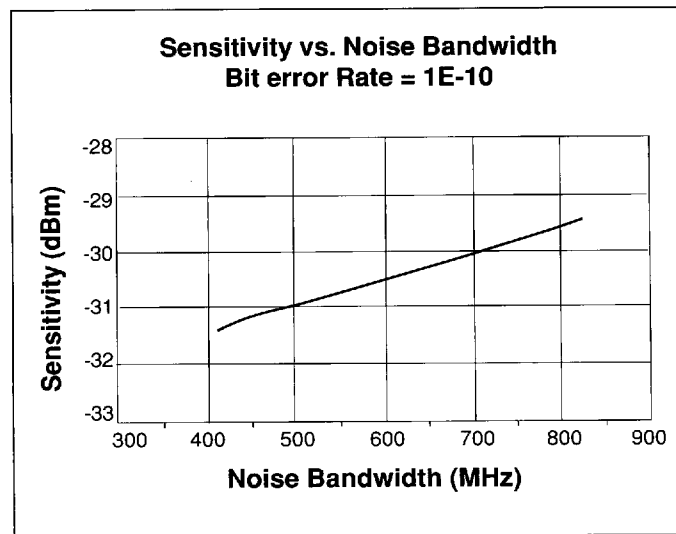
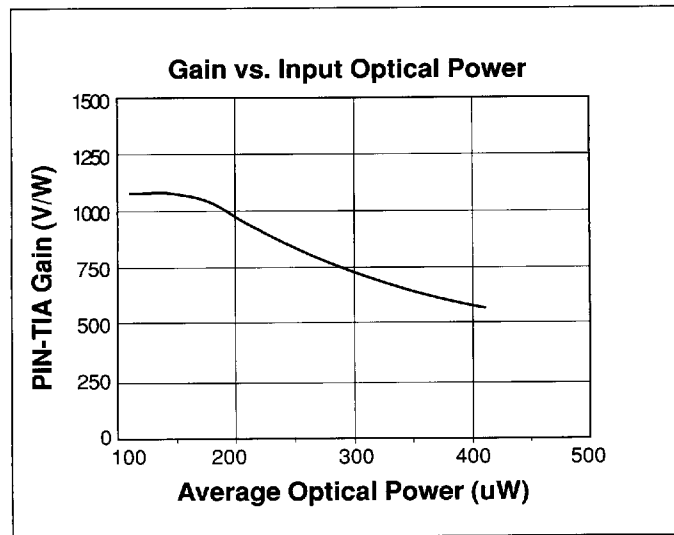
Parameter	Min.	Typ.	Max.	Units
Supply Voltage V_{dd}	4.5	5.0	6.0	V
Detector Voltage V_{pd}	0	-5.0	-25.0	V
Output Offset Voltage V_{os}	1.3	1.8	2.2	V
Supply Current I_{dd}		35		mA

Notes:

¹ When input optical power is below AGC threshold level.

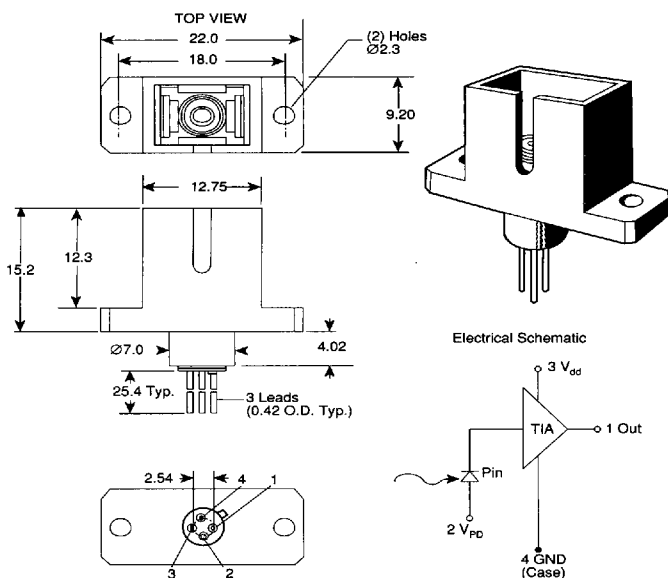
² Bit error rate of 1E-10. Noise bandwidth of 415 MHz

³ Damage may occur if maximum power rating is exceeded

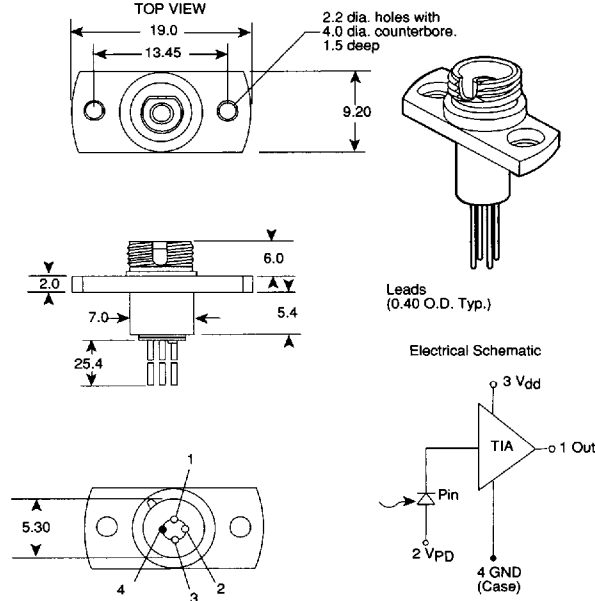


ERM536RSC-FM

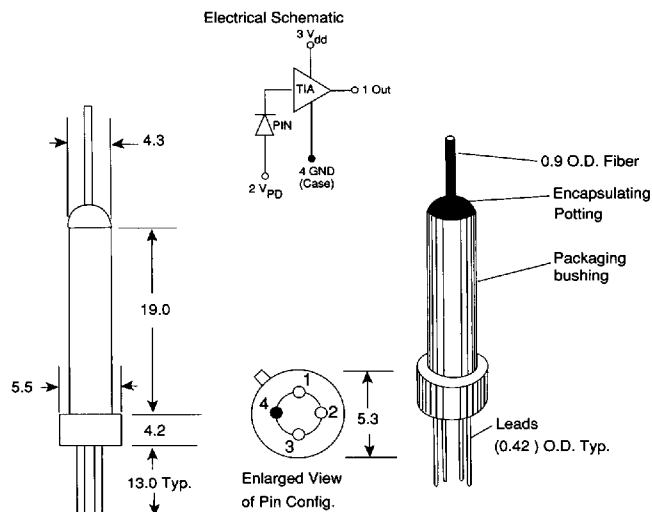
All dimensions in mm

**ERM536RFC2**

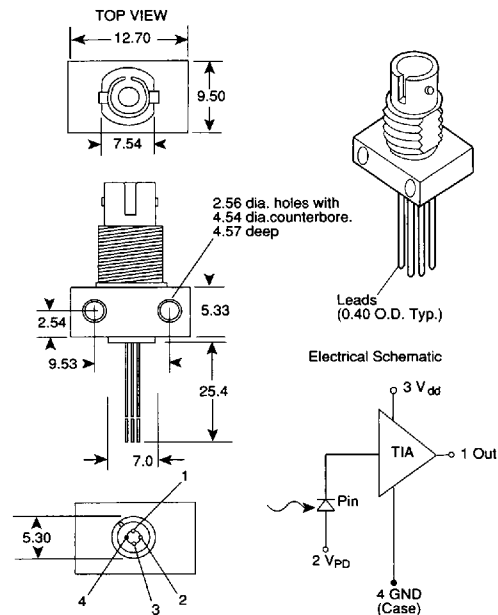
All dimensions in mm

**ERM536FJ-S**

All dimensions in mm

**ERM536RST**

All dimensions in mm



EPITAXX, Inc. believes the information contained in this document to be accurate. However, no responsibility is assumed for its use nor for any infringement of the rights of third parties. EPITAXX, Inc. reserves the right to introduce changes without notice.

EPITAXX
OPTOELECTRONIC DEVICES

Corporate Headquarters

7 Graphics Drive • West Trenton, NJ 08628
TEL (609) 538-1800 • FAX (609) 538-1684

West Coast Sales Office

Los Angeles, CA 90067
TEL (310) 551-6507 • FAX (301) 551-6577

3360406 0000348 7T1