

DESCRIPTION

This is a direct coupled optical receiver designed for short distance 850 fiber optic systems. The receiver contains a monolithic IC, with an integral photodiode and amplification circuit and an Open Collector Schottky output.

ABSOLUTE MAXIMUM RATINGS

- Open Collector output
- Storage temperature..... -55°C to +125°C
- Case operating temperature... -40°C to +85°C
- Lead solder temperature..... 260°C, 10 seconds
- Supply Voltage..... +6 Volts

OPERATING CONDITIONS

- Supply Voltage..... +4.5 to +5.5 Volts
- Optical Input Power..... 3 to 100 μW
- Optical signal pulse width..... < 100 nsec
- Optical signal edges..... < 20 nsec

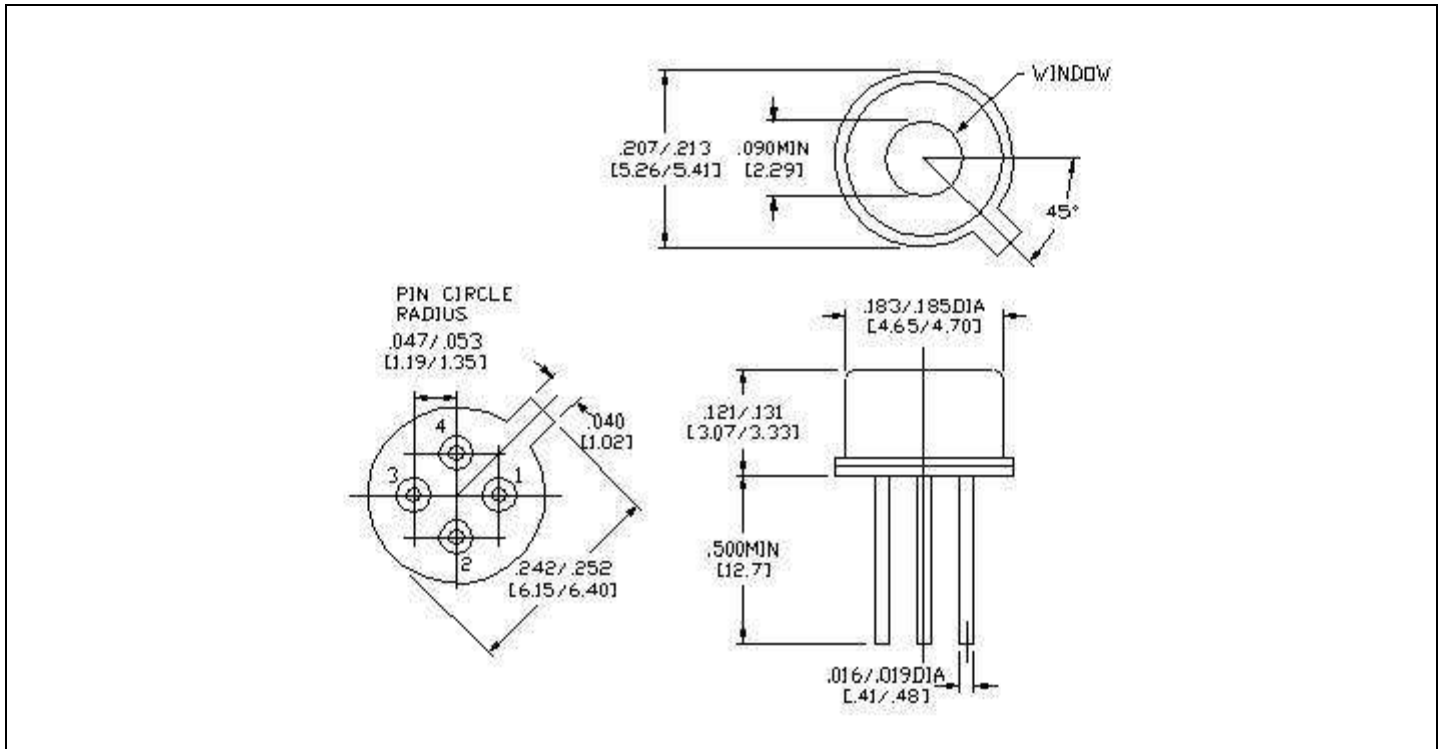
FEATURES

- Converts fiber optic signals to TTL Digital outputs
- Typical sensitivity 2 μW (-27 dBm)
- High Reliability
- Hermetic Package
- Similar to Honeywell HFD 3023-002
- Integral micro lens for efficient fiber coupling
- Single 5 Volt supply requirement

ELECTRO-OPTICAL CHARACTERISTICS (Case T = 25°C)

PARAMETER	TEST CONDITION	SYMBOL	MIN	TYP	MAX	UNIT
High Level Logic Output Voltage	$P_{in} \leq 0.1 \mu W, R_L = 560 \Omega$	V_{OH}	2.4	4.5		Volts
Low Level Logic Output Voltage	$P_{in} > 3.0 \mu W, R_L = 560 \Omega$	V_{OL}		0.25	0.5	Volts
Supply Current 1	$P_{in} > 3 \mu W$	I_{cc1}		13	15	mA
Supply Current 2	$P_{in} \leq 0.1 \mu W$	I_{cc2}		4.5	6.5	mA
Minimum Input Sensitivity	$\lambda = 850 \text{ nm into } 100/140 \mu\text{m}$ Optical Fiber, $f = 2.5 \text{ MHz}$ 50%DC, PWD < 10%	$P_{in(peak)}$		2.0	3.0	μW
				-27.0	-25.2	dBm
Response Time	10%-90%, $P_{in} \leq 10 \mu W$ $V_o = 0.5 \text{ to } 2.4 \text{ V}, R_L = 560 \Omega$	t_r t_f		6	9	nsec
				6	9	nsec
Pulse Width Distortion	$f = 2.5 \text{ MHz}, \text{DC} = 50\%$ $P_{in} = 3 \mu W \text{ peak}$ $P_{in} = 80 \mu W \text{ peak}$	PWD		5	10	%
				25	35	%

OUTLINE DIMENSIONS



All dimensions are in inches (except as noted)
 Pinout : 1. Vcc, 2. GND, 3. Output (TTL), 4. Case (GND)