

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 +100°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..... -27 to -7 dBm
- ☐ Optical signal pulse width..... <100 nsec
- ☐ Optical signal edges..... <20 nsec

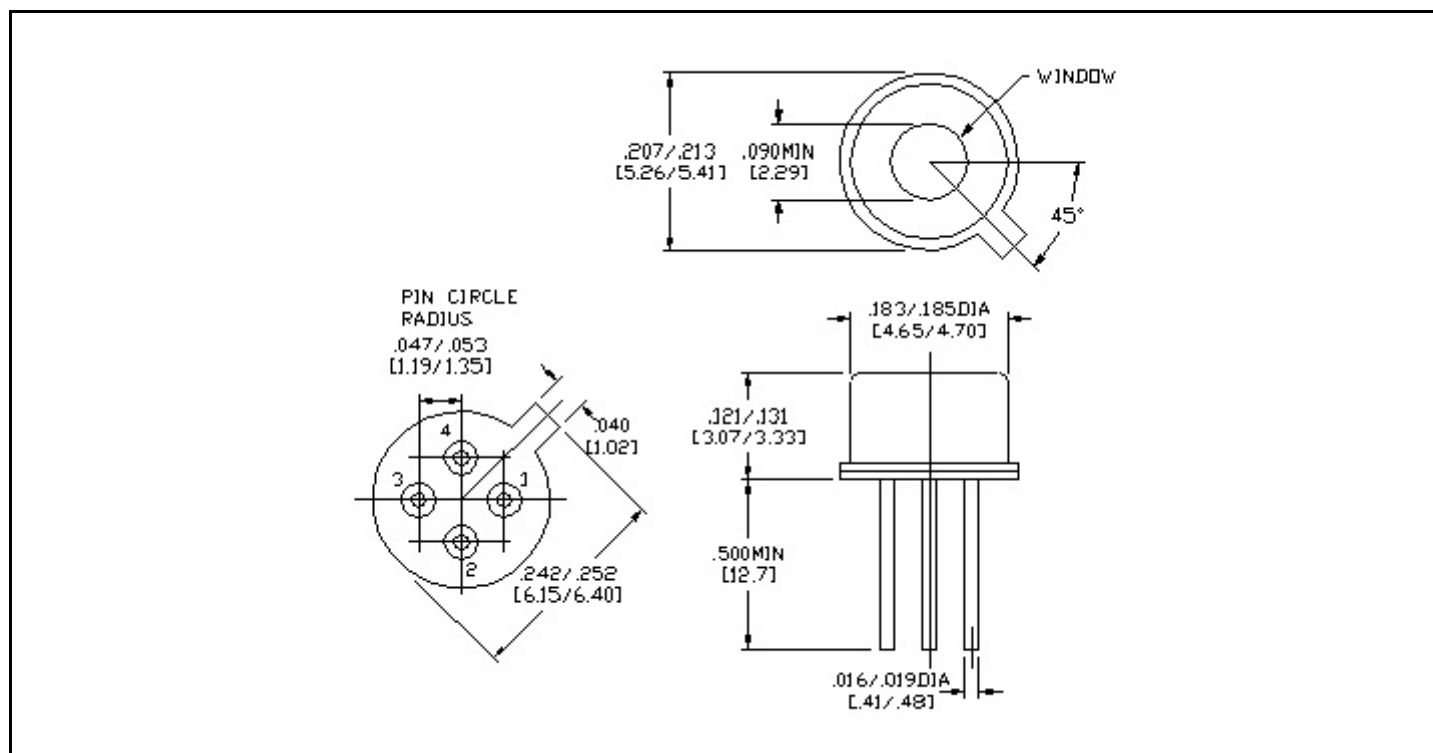
FEATURES

- ☐ Converts fiber optic signals to TTL Digital outputs
- ☐ Typical sensitivity 1 μ W (-30 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	$P_{in} \geq 3.0 \mu W$, $R_L = 560 \Omega$	V_{OL}		0.25	0.5	Volts
Supply Current 1	$P_{in} \geq 3 \mu W$	I_{CC1}		12	20	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 μm Optical Fiber, $f = 2.5 \text{ MHz}$ 50%DC, PWD<10%	$P_{in(peak)}$		1.0	3.0	μW
				-30.0	-27.0	dBm
Response Time	10%-90%, $P_{in} \leq 10 \mu W$ $V_o = 0.5$ to $2.4 V$, $R_L = 560 \Omega$	t_r	5		30	nsec
		t_f	2		15	nsec
Pulse Width Distortion	$f = 2.5 \text{ MHz}$, DC=50% $P_{in} = -30$ to -7 dBm	PWD		3	20	%

OUTLINE DIMENSIONS



All dimensions are in inches (except as noted)

Pinout : 1. Vcc, 2. GND, 3. Output (TTL), 4. Case (GND)