

Features

- Ambient Temperature Range -40°C to +85°C
- VCC Range 4.5V to 18V
- Supply Current 3.5mA max @ 5V
- Output sinks 16mA @ 400mV max
- Optical sensitivity adjustable

Maximum Ratings

Voltage at VCC	-0.5V to +20V
Voltage at OUT (Output off)	-0.5 to + 20V
Current into OUT (Output On)	30mA

Electrical Characteristic @ 25°C

Input Diode

Symbol	Parameter	Min.	Typ.	Max.	Units	Test Conditions
V_R	Reverse Voltage	2.0			V	$I_R = 10\mu A$
V_F	Forward Voltage			1.95	V	$I_F = 100mA$
P_o	Radiant Power Output	4.0	7.5		mW	$I_F = 100mA$

Output Detector

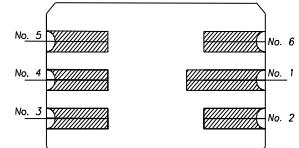
Parameter	Symbol	Min.	Typ.	Max.	Units	Test Conditions
Vcc Voltage Range	V_{ccR}	4.5	5	18	V	
Supply Current @ 5V (Output Low)	I_{cc5L}	1.5	2.1	2.9	mA	LED ON; ADJ OPEN
Supply Current @ 5V (Output High)	I_{cc5H}	1.8	2.5	3.5	mA	LED OFF; ADJ OPEN
Supply Current @ 18V (Output Low)	I_{cc18L}	2.9	4.0	5.6	mA	LED ON; ADJ OPEN
Supply Current @ 18V (Output High)	I_{cc18H}	2.2	3.1	4.4	mA	LED OFF; ADJ OPEN
Low Level Output Voltage @ 16mA ($V_{cc} = 4.5V$)	V_{OL1}	-	35	400	mV	LED ON; ADJ OPEN
Low Level Output Voltage @ 16mA ($V_{cc} = 18V$)	V_{OL2}	-	41	400	mV	LED ON; ADJ OPEN
High Level Output Voltage @ 100 μA ($V_{cc} = 4.5V$)	V_{OH1}	3.0	4.5	4.5	V	LED OFF; ADJ OPEN
High Level Output Voltage @ 100 μA ($V_{cc} = 18V$)	V_{OH2}	-	17.5	18.0	V	LED OFF; ADJ OPEN
Output Rise Time ($V_{cc} = 5V$)	t_r	-	44.0	60.0	nS	$C_l = 15 pF$
Output Fall Time ($V_{cc} = 5V$)	t_f	-	16	30	nS	$C_l = 15 pF$

- Due to the high sensitivity of this device, a 0.01μF bypass capacitor is recommended (VCC to ground).
- Optical threshold may be raised by connecting an external resistor from adjust to ground.

External Adjust Resistor OPEN 10K 4.7K 2.2K 1K (SHORT)	Typical Normalized Optical Threshold
	1.00
10K	1.95
4.7K	2.73
2.2K	3.80
1K	4.98
(SHORT)	7.23

**Opto Coupler
With
Logic Output
and
Adjustable
Optical
Threshold**

6 Pin LCC



Schematic

