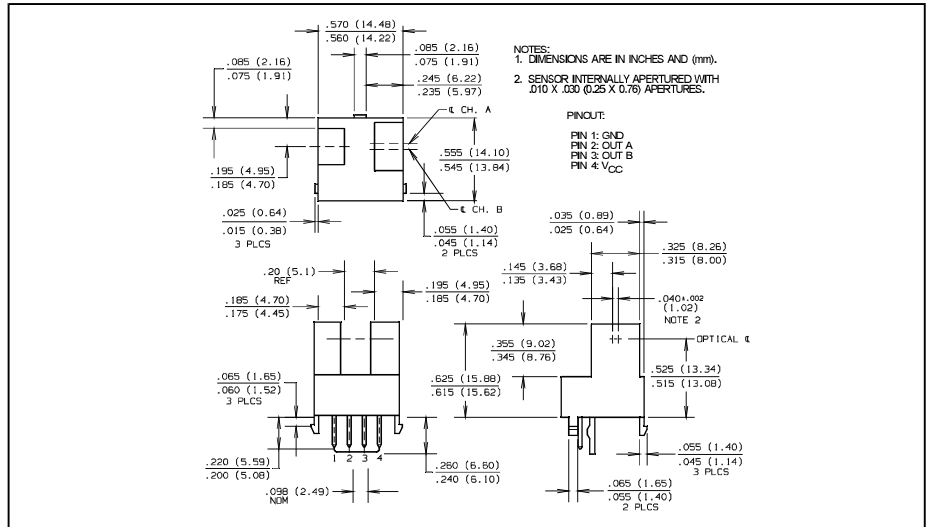
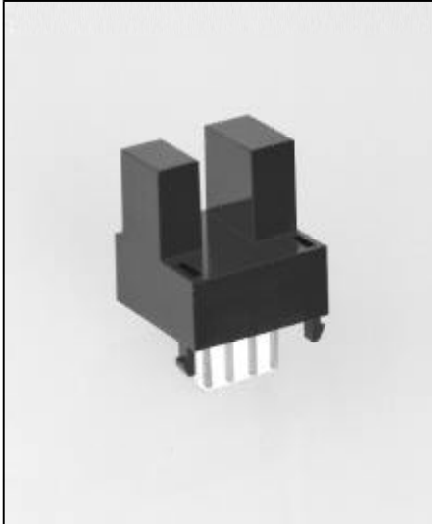


Dual Channel Encoder

Type OPB950



Features

- Dual channel outputs
- 0.010" (0.254 mm) sensor apertures for high resolution
- Open collector inverter outputs
- Snap mount
- 4-pin connector (Ho Tien 2560-04), Molex compatible connector 5102 series housing and 5103 series terminal

Description

The OPB950 consists of an infrared emitting diode and a monolithic integrated circuit which incorporates two independent photodiodes, linear amplifiers, Schmitt trigger circuits and output transistors. The outputs are TTL/LSTTL compatible and can drive 8 TTL loads.

Applications include linear and rotary encoders with high resolution provided by internal 0.010" (0.254 mm) apertures located in front of Photologic[®] sensor on 0.040" (1.02 mm) center line spacing.

Absolute Maximum Ratings (T_A = 25° C unless otherwise noted)

Storage Temperature Range -40° C to +85° C
 Operating Temperature Range -40° C to +85° C

Input Diode

Forward DC Current 50 mA
 Peak Forward Current (1μs Pulse Width, 300 pps) 3.0 A
 Reverse D. C. Voltage 2.0 V
 Power Dissipation 100 mW⁽¹⁾

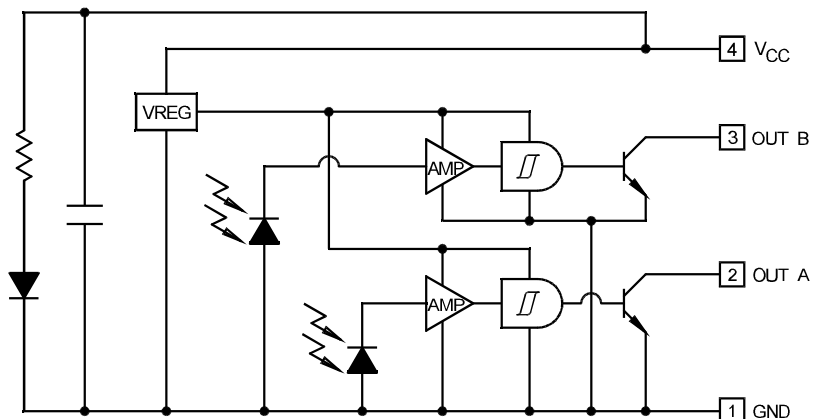
Output Photologic[®]

Supply Voltage, V_{CC} 5 V
 Voltage at Output 18 V
 Power Dissipation 200 mW⁽²⁾
 Low Level Output Current (Sinking) 40 mA

Notes:

- (1) Derate linearly 1.67 mW/° C above 25° C.
 (2) Derate linearly 3.33 mW/° C above 25° C.

Schematic



Type OPB950

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
V_{CC}	Operating D.C. Supply Voltage	4.75	5.0	5.25	V	
V_{OH}	High Level Output Voltage (per channel)	2.4			V	$V_{CC} = 5.0\text{ V}$, Blocked Condition
V_{OL}	Low Level Output Voltage (per channel)			0.4	V	$V_{CC} = 5.0\text{ V}$, Unblocked Condition

Optek reserves the right to make changes at any time in order to improve design and to supply the best product possible.

Optek Technology, Inc. 1215 W. Crosby Road Carrollton, Texas 75006 (972) 323-2200 Fax (972) 323-2396