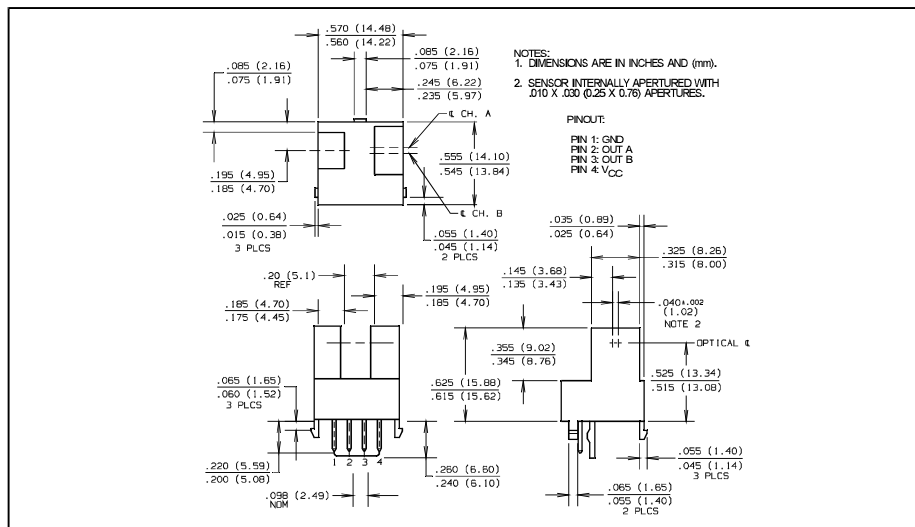
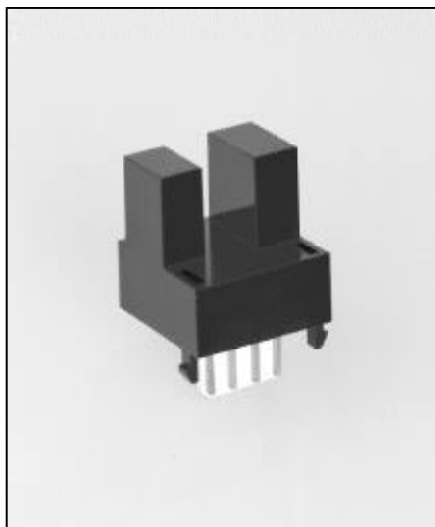


Dual Channel Encoder Type OPB950



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.



For RoHS compliant devices add "Z" to the end of the part number: OPB950Z

RoHS

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⁾

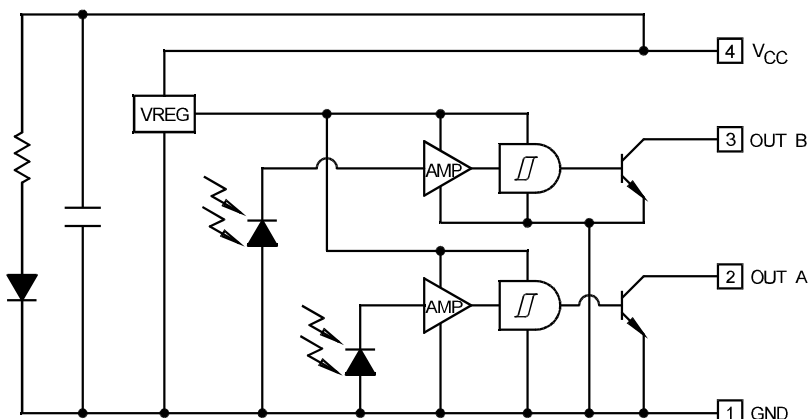
Output Photologic®

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

SLOTTED
OPTICAL
COUNTERS

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

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