Tube Liquid Sensor

OPB350 / OCB350 Series

(Calibration Circuit Available)

Electrical Specifications

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

Storage Temperature	-40° C to +100° C
Operating Temperature	-40° C to +85° C
Lead Soldering Temperature [1/16 inch (1.6 mm) from the case for 5 sec. with soldering iron] (2)	260° C
LED	
Forward DC Current	50 mA
Peak Forward Current (2 µs pulse width, 0.1 % duty cycle)	1 A
Reverse DC Voltage	2 V
Power Dissipation	100 mW
Output Phototransistor	
Collector-Emitter Voltage	24 or 30 V
Collector DC Current	50 mA
Power Dissipation	100 mW

Electrical Characteristics (T_A = 25° C unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Input LED (See OP245 for additional information — for reference only)						
V_F	Forward Voltage	-	-	1.7	V	I_F = 20 mA
I_R	Reverse Current	-	-	100	µA	V_R = 2.0 V
Output Phototransistor (See OP555 [OPB350] & OP750 [-062, -125, -187 & -250] for additional information— for Ref. Only)						
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage OPB350 -062, -187 & -250	30 24	- -	- -	V	I_C = 100 µA, E_E = 0 mw/cm²
I_{CEO}	Collector-Emitter Dark Current	-	-	100	nA	V_{CE} = 10 V, I_F = 0, E_E = 0 mw/cm²
Coupled						
$V_{CE(SAT)}$	Collector-Emitter Saturation Voltage	-	-	0.4	V	I_C = 100 µA, I_F = 5 mA
$I_{C(ON)}$	On-State Collector Current OPB350L062 & OPB350W062Z OPB350 OPB350L125 & OPB350W125Z OPB350L187 & OPB350W187Z OPB350L250 & OPB350W250Z	 0.30 1.00 1.30 1.00 0.75	 0.8 3.5 2.6 2.0 1.5	 1.3 6.0 3.9 4.0 3.0	mA	V_{CE} = 0.4 V, I_F = 5 mA
On/Off Ratio	OPB350L062 & OPB350W062Z OPB350 OPB350L125 & OPB350W125 OPB350L187 & OPB350W187 OPB350L250 & OPB350W250	- - - - -	3.0 3.0 2.5 2.3 2.3	- - - - -	-	V_{CE} = 0.4 V, I_F = 5 mA , I.D.=0.0312"(6) V_{CE} = 0.4 V, I_F = 5 mA , I.D.=0.0625"(6) V_{CE} = 0.4 V, I_F = 5 mA , I.D.=0.0870"(6) V_{CE} = 0.4 V, I_F = 5 mA , I.D.=0.1250"(6)

OPTEK Technology, Inc.
1645 Wallace Drive, Carrollton, TX 75006|Ph: +1 972 323 2200
www.optekinc.com | www.ttelectronics.com

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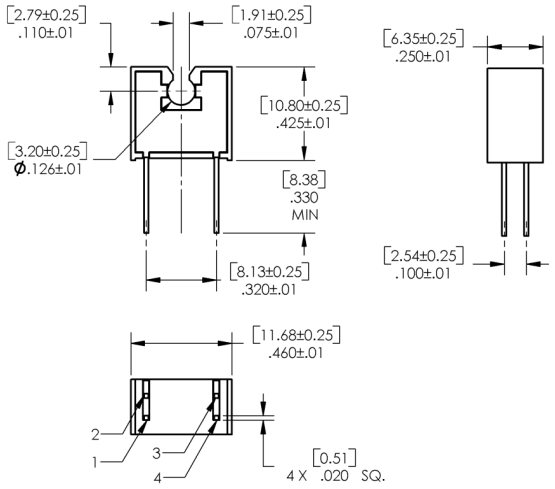
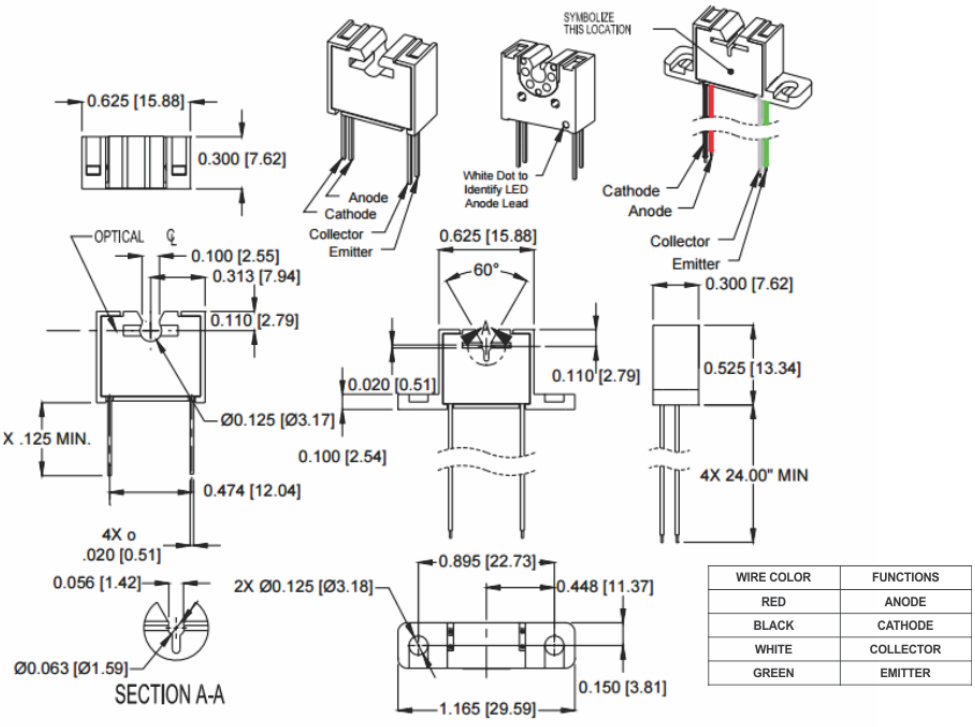
OPB350



OPB350L062 & OPB350W062Z
OPB350L125 & OPB350W125Z



WIRE COLOR	FUNCTIONS
RED	ANODE
BLACK	CATHODE
WHITE	COLLECTOR
GREEN	EMITTER

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