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

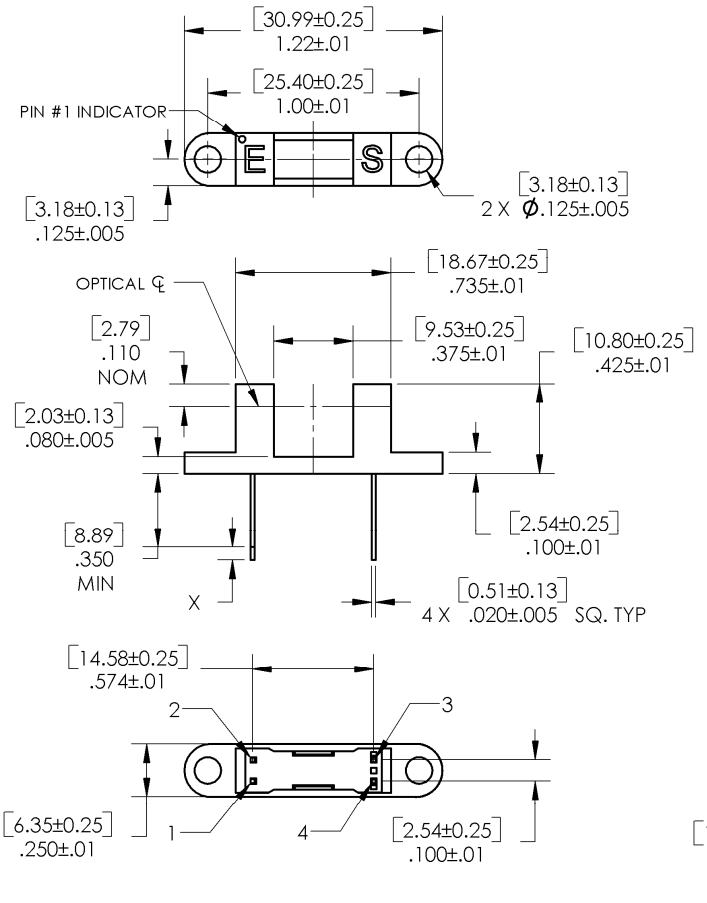
Storage and Operating Temperature L Series W Series	 -40° C to +85° C -40° C to +80° C
Lead Soldering Temperature [1/16 inch (1.6mm) from the case for 5 sec. with soldering iron][2]	260° C

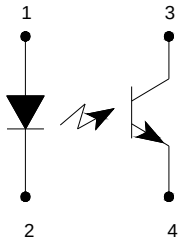
Input Diode

Forward DC Current	50 mA
Peak Forward Current (1 µs pulse width, 300 pps)	3 A
Reverse DC Voltage	2 V
Power Dissipation[1]	100 mW

Output Phototransistor

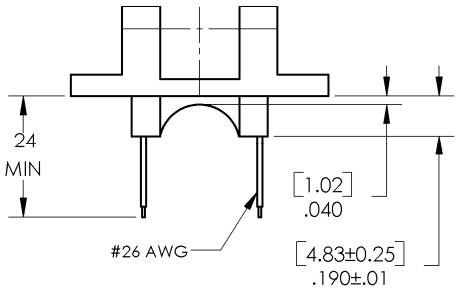
Collector-Emitter Voltage	30 V
Emitter-Collector Voltage	5 V
Collector DC Current	30 mA
Power Dissipation[1]	100 mW

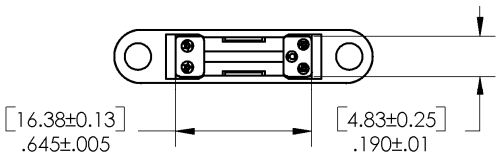




Color/Pin #	Description
Red-1	Anode
Black-2	Cathode
White-3	Collector
Green-4	Emitter

Wired (W) Version





DIMENSIONS ARE IN: **[MILLIMETERS]**
INCHES

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

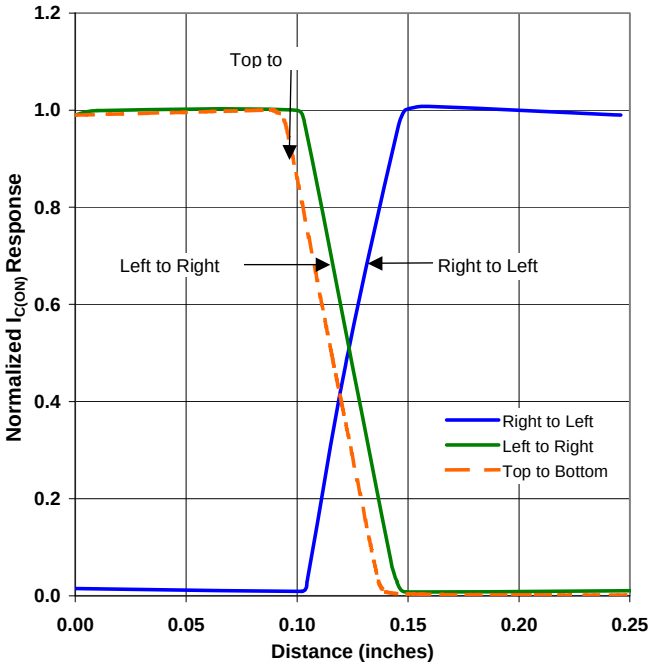
OPTEK Technology Inc. — 1645 Wallace Drive, Carrollton, Texas 75006
Phone: (972) 323-2200 or (800) 341-4747 FAX: (972) 323-2396 sensors@optekinc.com www.optekinc.com

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

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Input Diode						
V_F	Forward Voltage	-	-	1.7	V	I_F = 20 mA
I_R	Reverse Current	-	-	100	µA	V_R = 2 V
Output Phototransistor						
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	30	-	-	V	I_C = 1 mA
$V_{(BR)ECO}$	Emitter-Collector Breakdown Voltage	5	-	-	V	I_E = 100 µA
I_{CEO}	Collector-Emitter Dark Current	-	-	100	nA	V_{CE} = 10 V
Combined						
$V_{CE(SAT)}$	Collector-Emitter Saturation Voltage					
	Parameter A (OPB800,OPB810)	-	-	0.4	V	I_C = 250 µA, I_F = 20 mA
	Parameter B (OPB801,OPB811)	-	-	0.4	V	I_C = 500 µA, I_F = 10 mA
	Parameter C (OPB802,OPB812)	-	-	0.6	V	I_C = 1800 µA, I_F = 20 mA
$I_{C(ON)}$	On-State Collector Current					
	Parameter A (OPB800,OPB810)	0.625	-	-		V_{CE} = 10 V, I_F = 20 mA
	Parameter B (OPB801,OPB811)	1.25	-	-	mA	V_{CE} = 5 V, I_F = 10 mA
	Parameter C (OPB802,OPB812)	2.25	-	-		V_{CE} = 0.6 V, I_F = 20 mA

Notes:
(1) Derate linearly 1.67 mW/° C above 25° C.
(2) RMA flux is recommended. Duration can be extended to 10 seconds maximum when flow soldering.
(3) All parameters tested using pulse technique.
(4) Methanol or isopropanol are recommended as cleaning agents. Plastic housing is soluble in chlorinated hydrocarbons and ketones.
(5) The W Series includes wire terminations of 24" (610 mm) 7-strand, 26 AWG UL insulated wire on each terminal. Each device incorporates a wire strain relief at the housing surface. The insulation functions and colors are: anode (red), cathode (black), phototransistor collector (white) and phototransistor emitter (green).

OPB800_51 - Flag Next to Emitter



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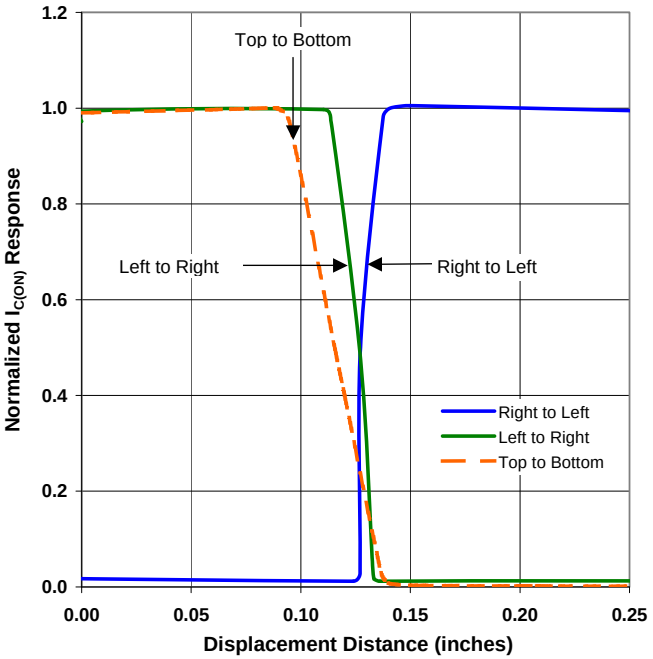

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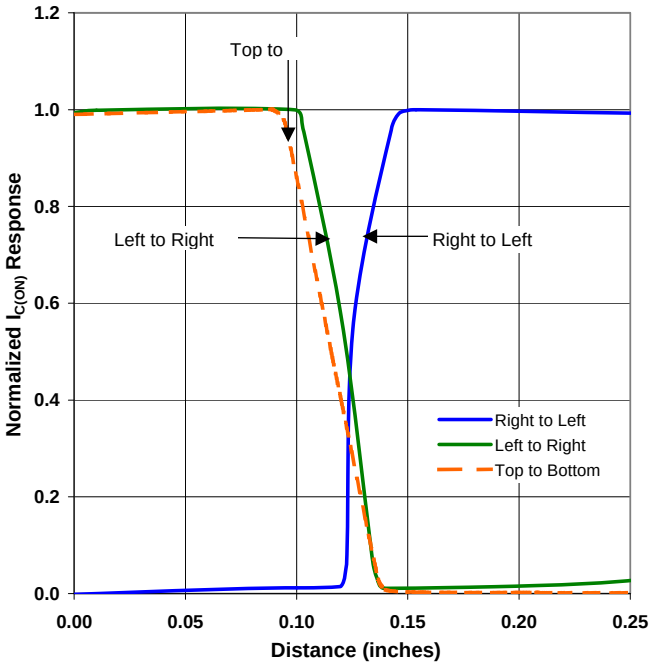

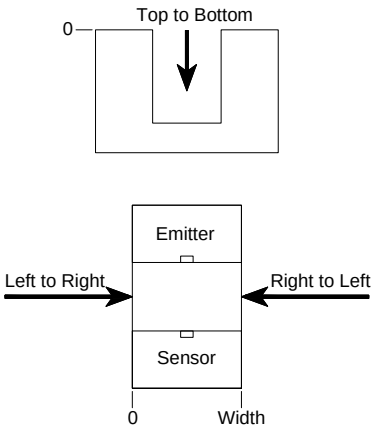

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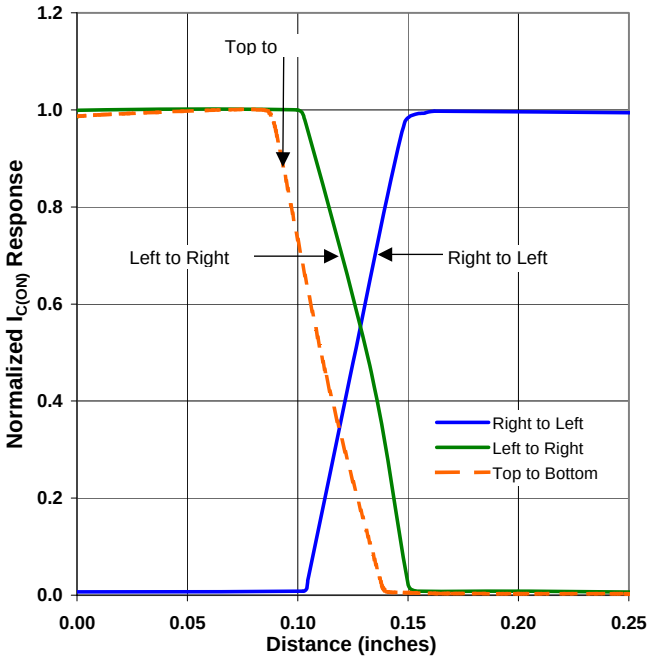
OPB800_55 - Flag Next to Emitter



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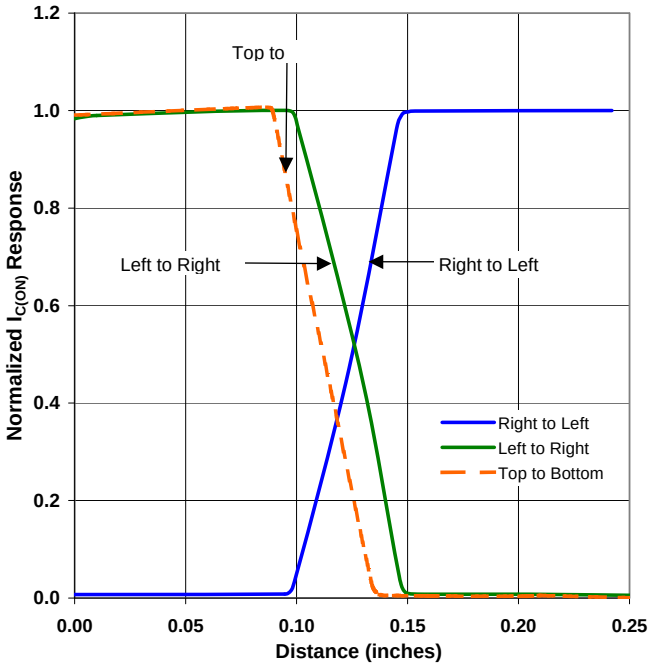
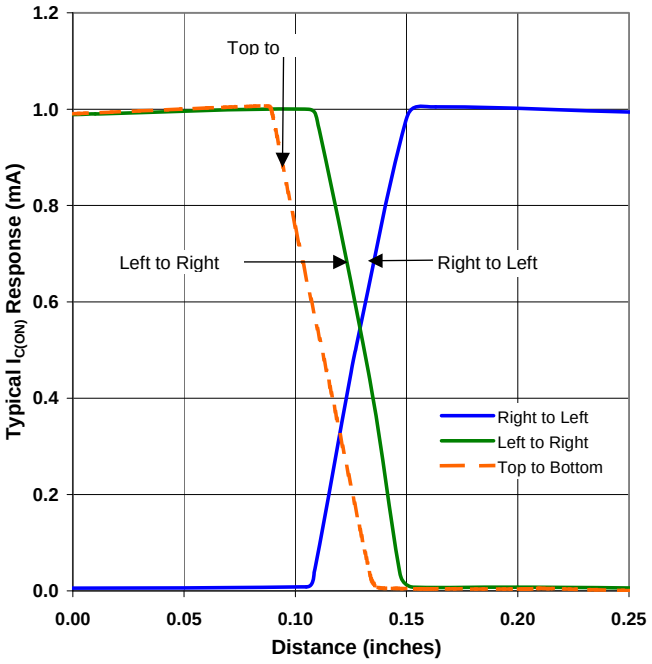
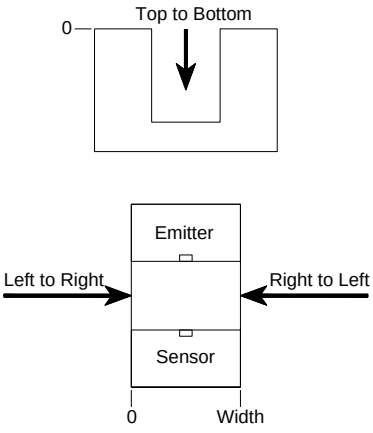


OPB800_55 - Flag in Middle of Slot





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