

Wide Gap Slotted Optical Switch



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

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

Notes:

- (1) Derate linearly 1.67 mW/ $^\circ\text{C}$ 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).

General Note

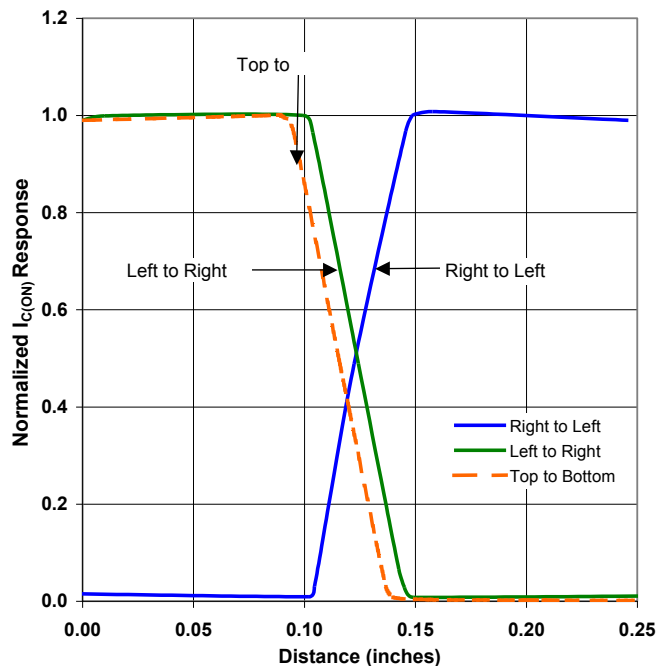
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TT Electronics | Optek Technology, Inc.
1645 Wallace Drive, Ste. 130, Carrollton, TX USA 75006 | Ph: +1 972 323 2200
www.ttelectronics.com | sensors@ttelectronics.com

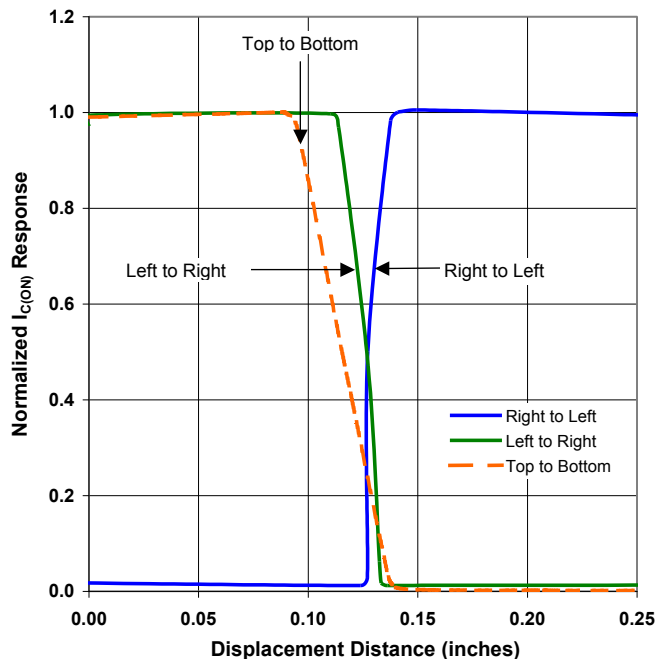
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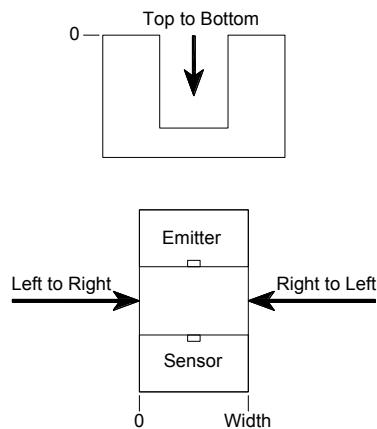
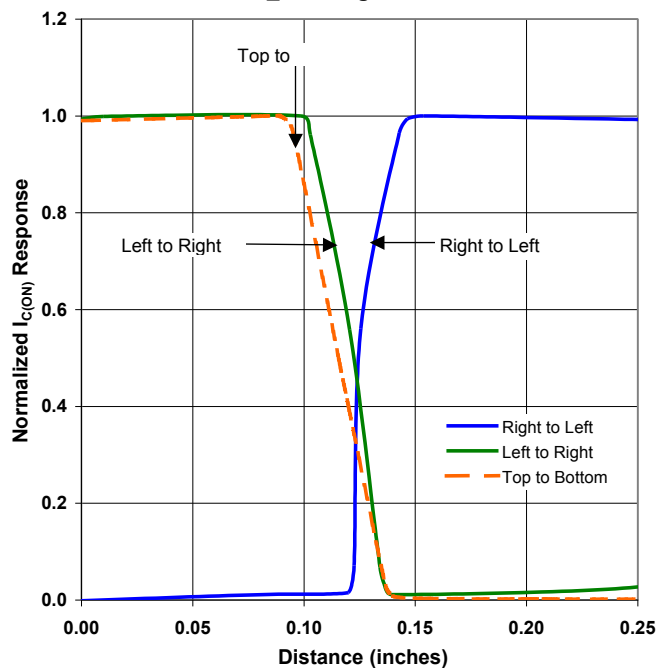
OPB800_51 - Flag Next to Emitter



OPB800_51 - Flag Next to Sensor



OPB800_51 - Flag in Middle of Slot



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