

Type OPB708

T-41-73

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

Symbol	Parameter	Min.	Max.	Units	Test Conditions
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Input Diode

V _F	Forward Voltage		1.70	V	I _F = 40 mA
I _R	Reverse Current		100	μA	V _R = 2.0 V

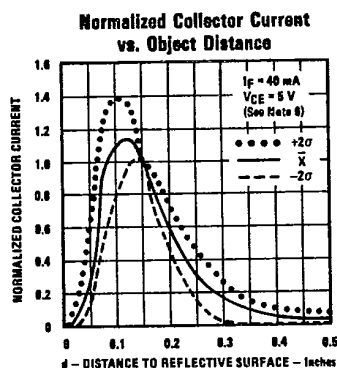
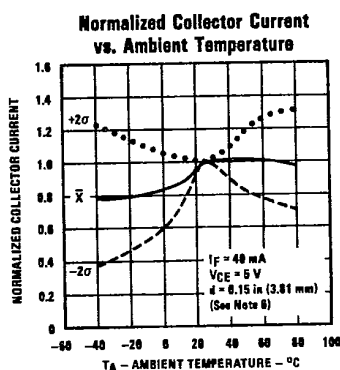
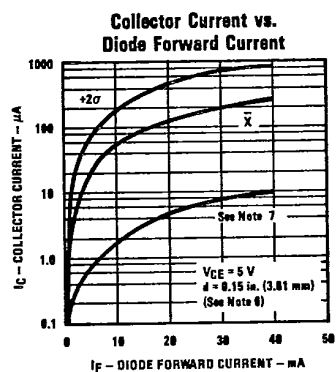
Output Phototransistor

V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	30		V	I _C = 100 μA
V _{(BR)ECO}	Emitter-Collector Breakdown Voltage	5.0		V	I _E = 100 μA
I _{CEO}	Collector Dark Current		100	nA	V _{CE} = 10.0 V, I _F = 0, E _g = 0

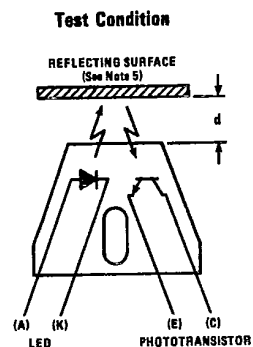
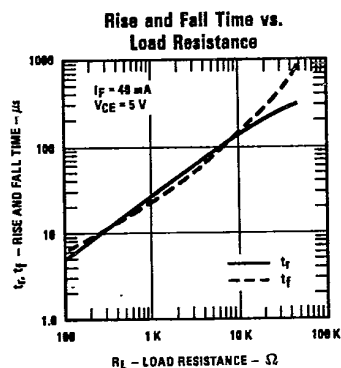
Combined

I _{C(ON)}	On-State Collector Current	10.0		μA	V _{CE} = 5.0 V, I _F = 40 mA, d = 0.150" (3.81 mm) ^{50%}
V _{CE(SAT)}	Collector-Emitter Saturation Voltage		0.40	V	I _F = 40 mA, I _C = 3.0 μA, d = 0.160" (3.81 mm) ^{50%}

Typical Performance Curves



G



Type OPB709

T-41-73

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

Symbol	Parameter	Min.	Max.	Units	Test Conditions
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Input Diode

V _F	Forward Voltage		1.70	V	I _F = 40 mA
I _R	Reverse Current		100	μA	V _R = 2.0 V

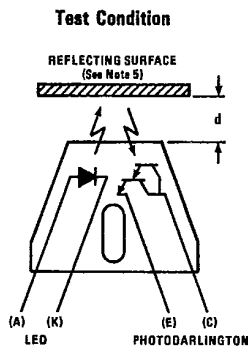
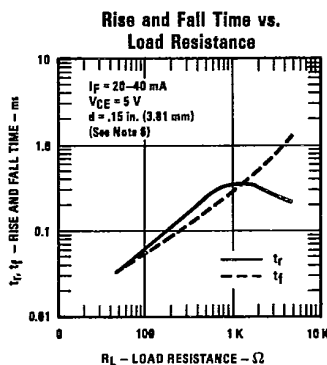
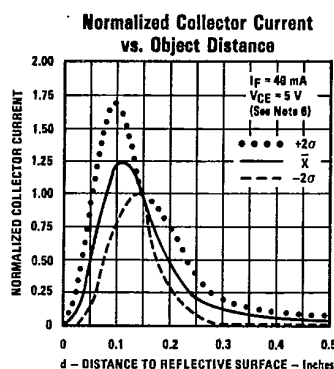
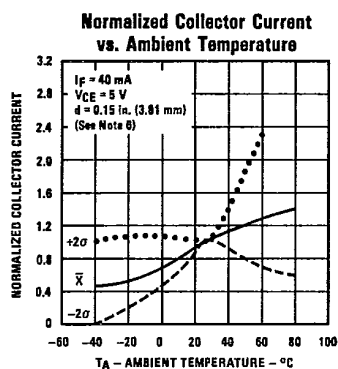
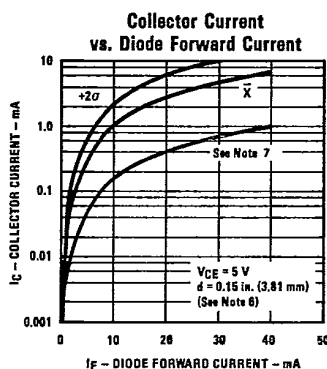
Output Photodarlington

V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	15.0		V	I _C = 100 μA
V _{(BR)ECO}	Emitter-Collector Breakdown Voltage	5.0		V	I _E = 100 μA
I _{CEO}	Collector Dark Current		250	nA	V _{CE} = 10.0 V, I _F = 0, E _B = 0

Combined

I _{C(ON)}	On-State Collector Current	1.00		mA	V _{CE} = 5.0 V, I _F = 40 mA, d = 0.150" (3.81 mm) ⁽⁵⁾⁽⁶⁾
V _{CE(SAT)}	Collector-Emitter Saturation Voltage		1.10	V	I _F = 40 mA, I _C = 3.0 μA, d = 0.150" (3.81 mm) ⁽⁵⁾⁽⁶⁾

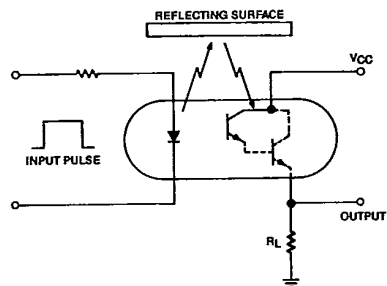
Typical Performance Curves



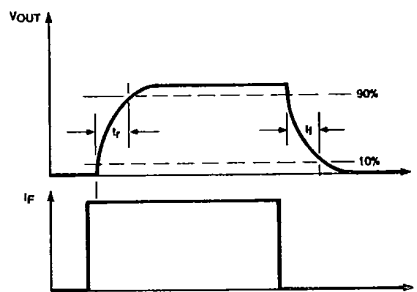
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Response Time Test Circuit

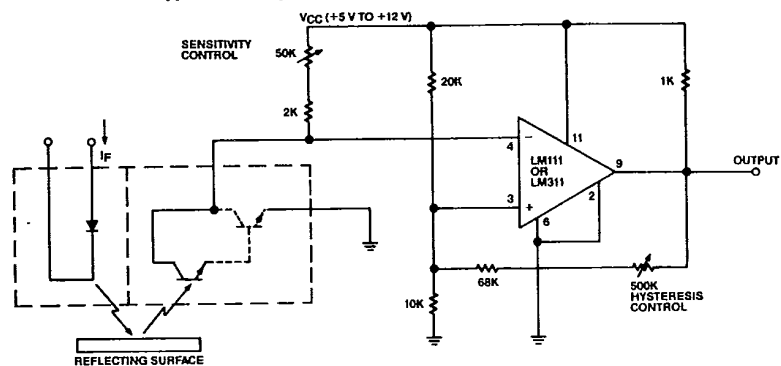


Switching Time Waveforms



Typical Interfacing Circuit

Recommended for applications requiring adjustments on both sensitivity and hysteresis.



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Optoelectronics Division, TRW Electronic Components Group, 1215 W. Crosby Rd., Carrollton, TX 75006 (214) 323-2200, TLX 6716032 or 215849
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