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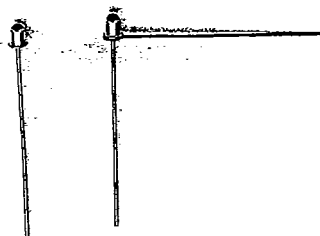
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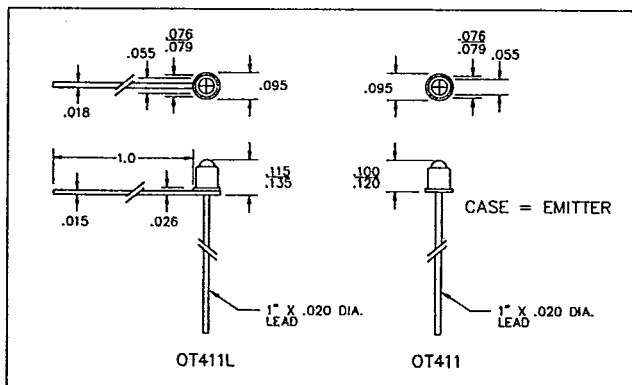
T-41.63

NPN SILICON PHOTODARLINGTON**TYPE OT 411****Features**

- Miniature photodarlington
- Hermetically sealed package
- High sensitivity

**Description**

Opto Technology's OT 411 sensor features an NPN silicon photodarlington mounted in a miniature hermetic package. The sensor can be mounted into a housing or soldered directly into a printed circuit board. Photodarlington is ideal in applications where light signal levels are low and more current gain is needed than is possible with phototransistors.

**Absolute Maximum Ratings⁽⁴⁾ (TA = 25°C unless otherwise specified)**

Collector-Emitter Voltage	30 V
Emitter-Collector Voltage	4 V
Power Dissipation	100 mW ⁽¹⁾
Storage Temperature Range	-65°C to +150°C
Operating Temperature Range	-65°C to +125°C
Lead Soldering Temperature (for 5 sec. with soldering iron)	240°C ⁽²⁾

Notes:

(1) Derate .95 mW/°C above 25°C.

(2) RMA flux is recommended. Duration can be extended to 10 sec. max. when wave soldering.

(3) Light source is unfiltered tungsten bulb operating at CT = 2870°K.

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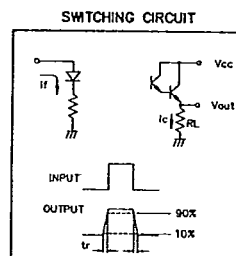
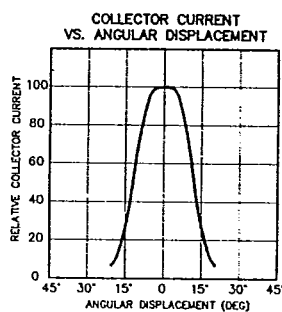
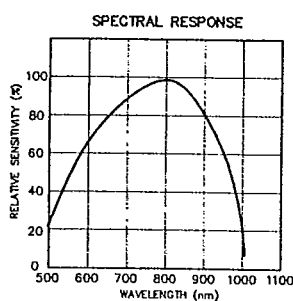
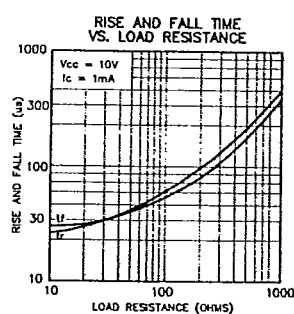
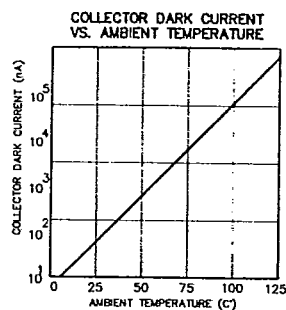
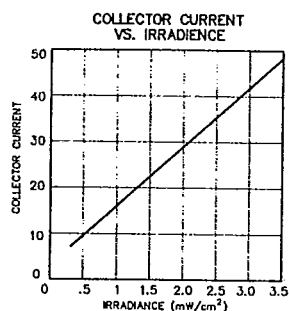
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Electrical Characteristics: (25°C)

PHOTODARLINGTON	SYMBOL	MIN.	TYP.	MAX.	UNITS
Light Current ⁽³⁾ $V_{CE} = 5V, H = 5mW/cm^2$	$I_{C(ON)}$	5			mA
Dark Current $V_{CE} = 10V, H = 0$	I_{CEO}			1.0	μA
Collector-Emitter Voltage	V_{CEO}	30			V
Emitter-Collector Voltage	V_{ECO}	4			V
Saturation Voltage $I_C = 1mA$	$V_{CE(SAT)}$			1.0	V
Angular Response	ϕ		± 12		Deg.
Rise or Fall Time $R_L = 1000\Omega, V_{CC} = 10V$	t_r, t_f		150		μS

SENSORS

TYPICAL PERFORMANCE CURVES



Opto Technology reserves the right to make changes at any time to improve product design and reliability.