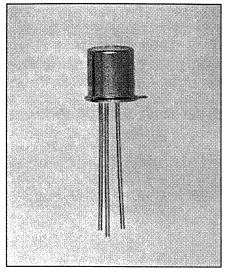
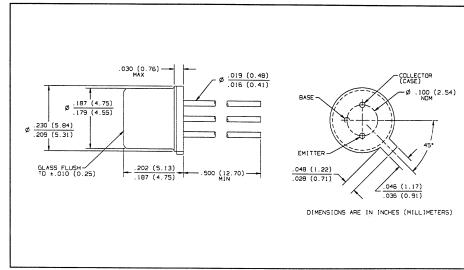


NPN Silicon Phototransistors Types OP800WSL, OP801WSL, OP802WSL





Features

- Wide receiving angle
- Variety of sensitivity ranges
- · Enhanced temperature range
- TO-18 hermetically sealed package
- Mechanically and spectrally matched to the OP130W and OP231W series emitters

Description

The OP800WSL series device consists of an NPN silicon phototransistor mounted in a hermetically sealed package. The wide receiving angle provides relatively even reception over a large area. TO-18 packages offer high power dissipation and superior hostile environment operation.

Replaces

OP800W and K5201 series

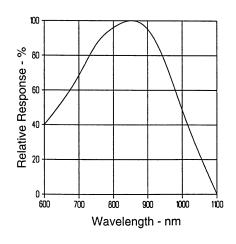
Absolute Maximum Ratings (T_A = 25° C unless otherwise noted)

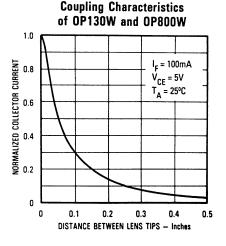
Collector-Emitter Voltage
Emitter-Collector Voltage
Continuous Collector Current 50 mA
Storage Temperature Range65° C to +150° C
Operating Temperature Range65° C to +125° C
Lead Soldering Temperature [1/16 inch (1.6 mm) from case for 5 sec. with soldering
iron]
Power Dissipation
Notes:

- (1) RMA flux is recommended. Duration can be extended to 10 sec. max. when flow soldering.
- (2) Derate linearly 2.5 mW/° C above 25° C.
- (3) Junction temperature maintained at 25° C.
 (4) Light source is an unfiltered tungsten bulb operating at CT = 2870 K or equivalent infrared source.

Typical Performance Curves

Typical Spectral Response





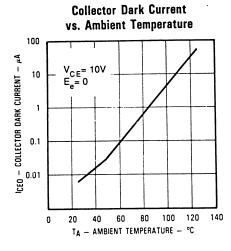
HOTOSENSORS

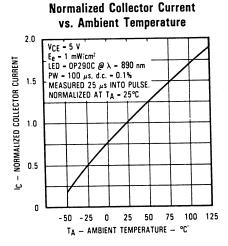
Types OP800WSL, OP801WSL, OP802WSL

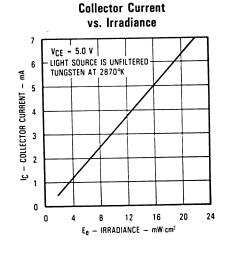
Electrical Characteristics (T_A = 25° C unless otherwise noted)

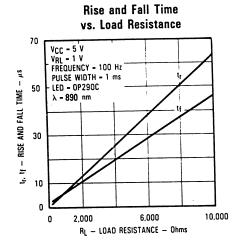
SYMBOL	PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITIONS
I _{C(ON)} ⁽³⁾	On-State Collector Current	OP800WSL OP801WSL OP802WSL	0.3 0.5 2.5		3.0	mA mA mA	V _{CE} = 5 V, E _e = 5 mW/cm ²⁽⁴⁾
ICEO	Collector Dark Current				100	nA	V _{CE} = 10 V, E _e = 0
V _(BR) CEO	Collector-Emitter Breakdown Voltage		30			V	I _C = 100 μA
V _{(BR)ECO}	Emitter-Collector Breakdown Voltage		5.0			V	I _E = 100 μA
VCE(SAT)(3)	Collector-Emitter Saturation Voltage				0.40	V	$I_C = 0.15 \text{ mA}, E_e = 0.5 \text{ mW/cm}^{2(4)}$
t _r	Rise Time Fall Time			7.0 7.0		μs μs	V_{CC} = 5 V, I_C = 0.80 mA, R_L = 100 Ω , See Test Circuit

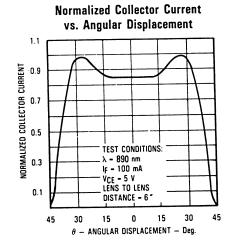
Typical Performance Curves

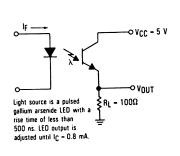












Switching Time

Test Circuit