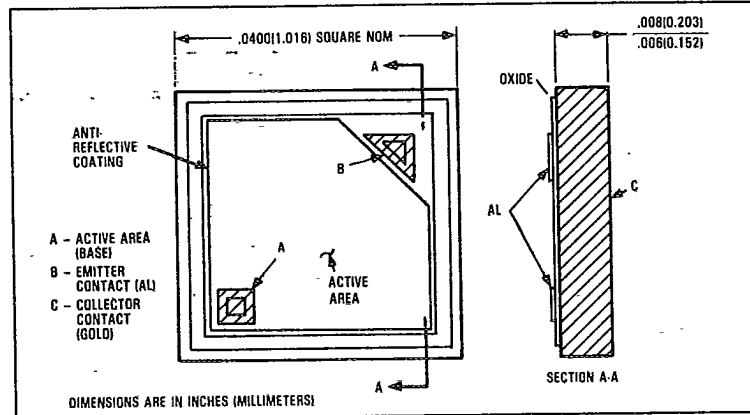
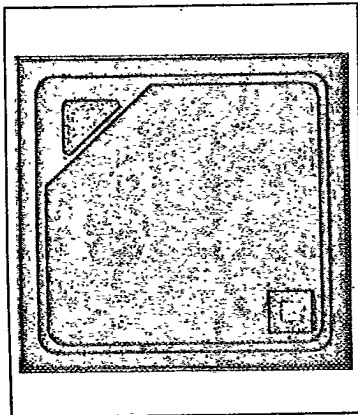




Product Bulletin OPC60X
July 1989 Replaces January 1985

NPN Silicon Phototransistor Chip Type OPC60X

T-41-61



Features

- 2.7 times the active area of OPC600L
- More sensitive at low light levels
- Active area is centered on chip

Description

The Optek Technology photosensor chips are fabricated using the latest silicon planar diffused technology and are silicon nitride passivated for long term stability. All photosensors have an antireflective coating over the active area to ensure maximum absorption of irradiated light. Chips can be specially probed to satisfy custom requirements.

Since Optek has no control over the techniques the customer may use to alloy and bond chips, Optek cannot be held responsible for damage to the chips resulting from such techniques.

Packaging Options

- OPC60X Vials
 - OPC60XTP Sawn on Tape
 - OPC60XWP Waffle Pack
- Special packaging and testing available upon request.

Absolute Maximum Ratings ⁽¹⁾(T_A = 25°C unless otherwise noted)

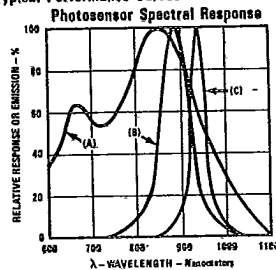
Storage and Operating Temperature -65°C to +150°C
Collector-Emitter Voltage 30V
Emitter-Collector Voltage 5.0V
Power Dissipation 50mW⁽²⁾

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

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	30			V	I _C = 100µA
V _{(BR)ECO}	Emitter-Collector Breakdown Voltage	5.0			V	I _E = 100µA
I _{CEO}	Collector Dark Current			100	nA	V _{CE} = 10.0V, Φ = 0µW
R _λ	Responsivity		0.25		A/W	V _{CE} = 5.0V, Φ = 10µW ⁽³⁾
h _{FE}	Current Gain	50				V _{CE} = 5.0V, I _b = 50µA

Notes: (1) All maximum ratings are determined with the chip mounted on a dimpled TO-18 header using Optek techniques. (2) Maximum power dissipation is a function of the package in which the chip is housed and the environment in which the assembled package will be used. (3) Light source is a GaAs LED, λ_P = 935nm, typical.

Typical Performance Curves



Test Conditions (LED):
T_A = T_J = 25°C; I_C = 100 mA, DC - 0.1%, PW = 100 µs
Pack Wavelength - λ_P: (A) XSTR - 850 ± 30 nm
(B) LED GaAs - 875 ± 20 nm
(C) LED GaAs - 930 ± 15 nm