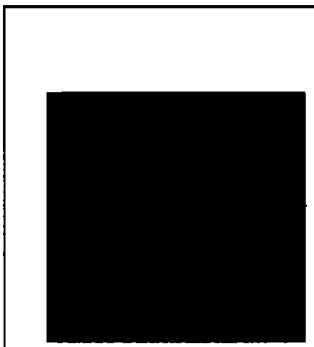
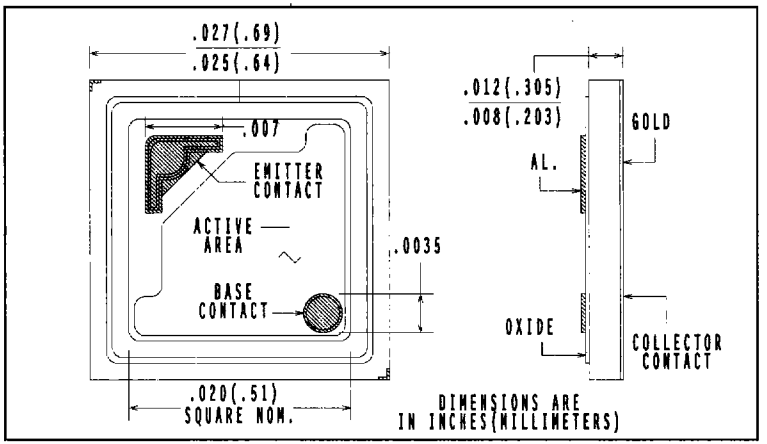
NPN Silicon Phototransistor Chip
Type OPC200





Features

- Active area centered on chip
- Low Cost
- Silicon nitride passivation

Description

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 anti-reflective coating over the active area to ensure maximum absorption of irradiated light. Chips can be specially probed for custom requirements.

Optek chip warranty excludes any damage resulting from improper bonding or alloying techniques.

Package Options

OPC200VP Vials
OPC200TP Sawn on Tape
OPC200WP Waffle Pack
OPC200SP Unsawn Slice
Special packaging and testing available upon request. Special transistor arrays available upon request.

Replaces

OPC600L

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

Operating Temperature ..... -40° C to +85° C
Storage Temperature ..... -65° C to +150° C
Collector-Emitter Voltage ..... 30 V
Emitter-Collector Voltage ..... 5.0 V
Power Dissipation ..... 50 mW[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	60		V	I_C = 100µA
$V_{(BR)ECO}$	Emitter-Collector Breakdown Voltage	5.0	7.5		V	I_E = 10 µA
I_{CEO}	Collector Dark Current		<1	100	nA	V_{CE} = 100V, Φ = 0
R_λ	Responsivity		0.25		A/W	V_{CE}=5V,Φ=10µΔW[3]
h_{FE}	Current Gain	100				V_{CE} = 5.0V,I_C =1.0mA

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 = 935 nm, typical.

Typical Performance Curves