Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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NPN Silicon Phototransistors

OP516A, OP516B, OP516C, OP516D

TT electronics
OPTEK Technology

Features:

- Variety of sensitivity ranges
- Coaxial leaded package style
- Small package size for space limited applications

Description:

The OP516 series devices consist of NPN silicon phototransistors in a small hermetic package with an extended Collector lead. The narrow receiving angle provides excellent on-axis coupling. This device is 100% production tested using infrared light for close correlation with Optek's GaAs and GaAlAs emitters.

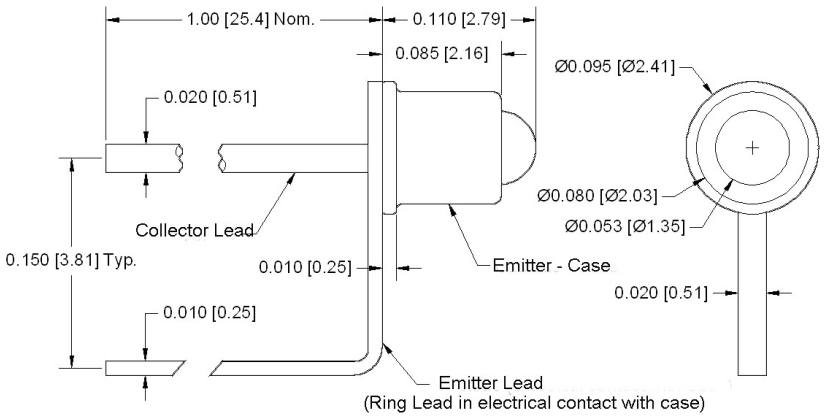
Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Continuous Collector Current	50 mA
Collector-Emitter Voltage	30 V
Emitter-Collector Voltage (OP505 and OP506 series only)	5.0 V
Storage & Operating Temperature Range	-55°C to +125°C
Lead Soldering Temperature (1/16 inch (1.6 mm) from case for 5 sec. with soldering iron)	260°C(1)
Power Dissipation	100 mW(2)

Notes:

(1) RMA flux is recommended. Duration can be extended to 10 seconds max. when flow soldering. Maximum 20 grams force may be applied to the leads when soldering.

(2) Derate linearly 0.71 mW/° C above 25° C.



Dimensions are in inches (mm)

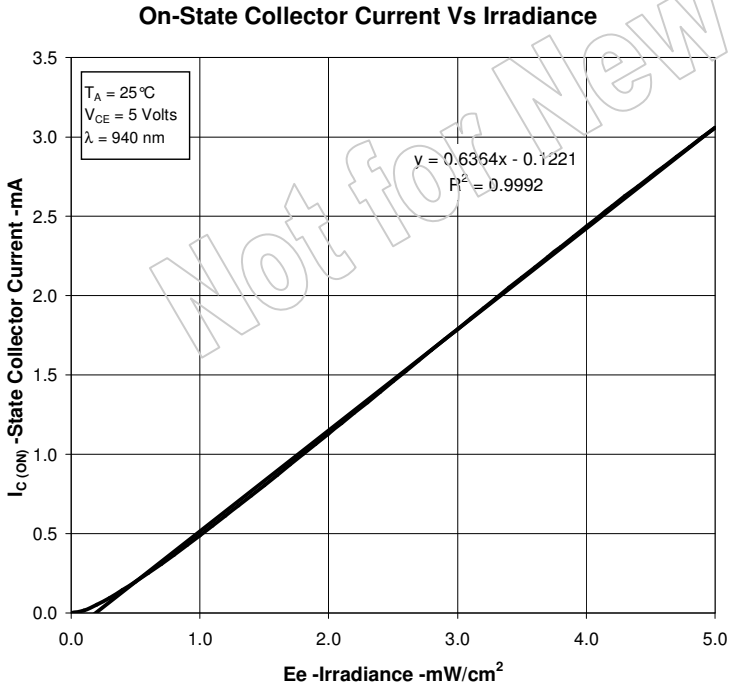
OPTEK Technology Inc.— 1645 Wallace Drive, Carrollton, Texas 75006
Phone: (800) 341-4747 FAX: (972) 323– 2396 sensors@optekinc.com www.optekinc.com

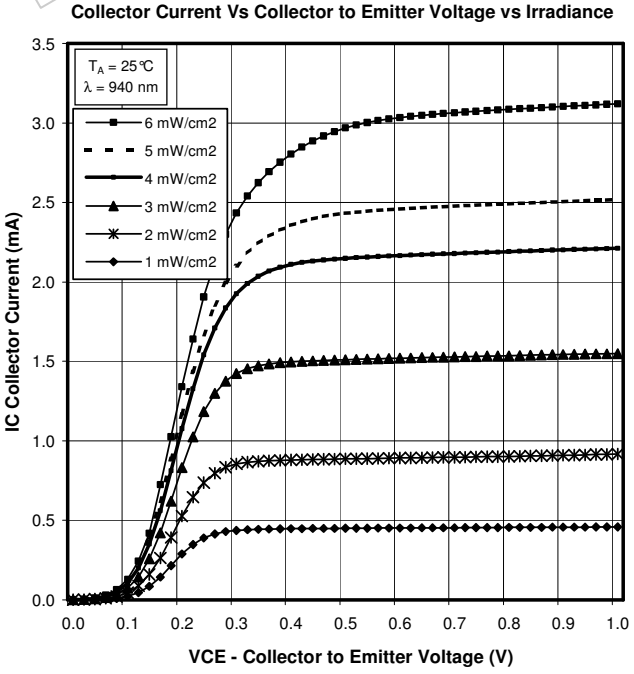
NPN Silicon Phototransistors
OP516A, OP516B, OP516C, OP516D

TT electronics
OPTEK Technology

Symbol	Parameter	Min	Typ	Max	Units	Test Conditions
$I_{C(ON)}$	On-State Collector Current OP516D OP516C OP516B OP516A	0.40 1.00 3.00 6.00			mA	V_{CE} = 5 V, E_e = 5.0 mW/cm^2 (3)
I_{CEO}	Collector-Dark Current			100	nA	V_{CE} = 10 V, E_e = 0 (4)
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	30			V	I_C = 100 µA
$V_{(BR)ECO}$	Emitter-Collector Breakdown Voltage	5			V	I_E = 100 µA
$V_{CE(SAT)}$	Collector-Emitter Saturation Voltage OP516			0.40	V	I_C = 400 µA, E_e = 5.0 mW/cm^2 (3)
$\Delta I_C/\Delta T$	Relative I_C Changes with Temperature OP505A-D and OP506A-D series		1.00		%/°C	V_{CE} = 5 V, E_e = 1.0 mW/cm^2
I_{ECO}	Emitter-Reverse Current			100	µA	V_{EC} = 0.4 V

Notes:
(1) $E_{e(APT)}$ is a measurement of the average apertured radiant energy incident upon a sensing area 0.250" (6.35mm) in diameter and perpendicular to and centered to the mechanical axis of the emitting surface at a distance of 0.466" (11.84mm). $E_{e(APT)}$ is not necessarily uniform within the measured area.
(2) Derating Linearly 0.71 mW/°C above 25°C
(3) Light source is an unfiltered GaAs LED with a peak emission wavelength of 935 nm and a radiometric intensity level which varies less than 10% over the entire lens surface of the phototransistor being tested.
(4) To calculate typical collector dark current in nA, use the formula $I_{CED} = 10^{(0.040T_A - 3.4)}$ where T_A is ambient temperature in °C.





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