

香港興業電子公司

HONGKONG HINGYIP ELECTRONIC CO.,

興業電子（中國）有限公司

TEL: 0755—83687887

HINGYIP ELECTRONIC (CHINA) CO., LTD. FAX: 0755—83291852

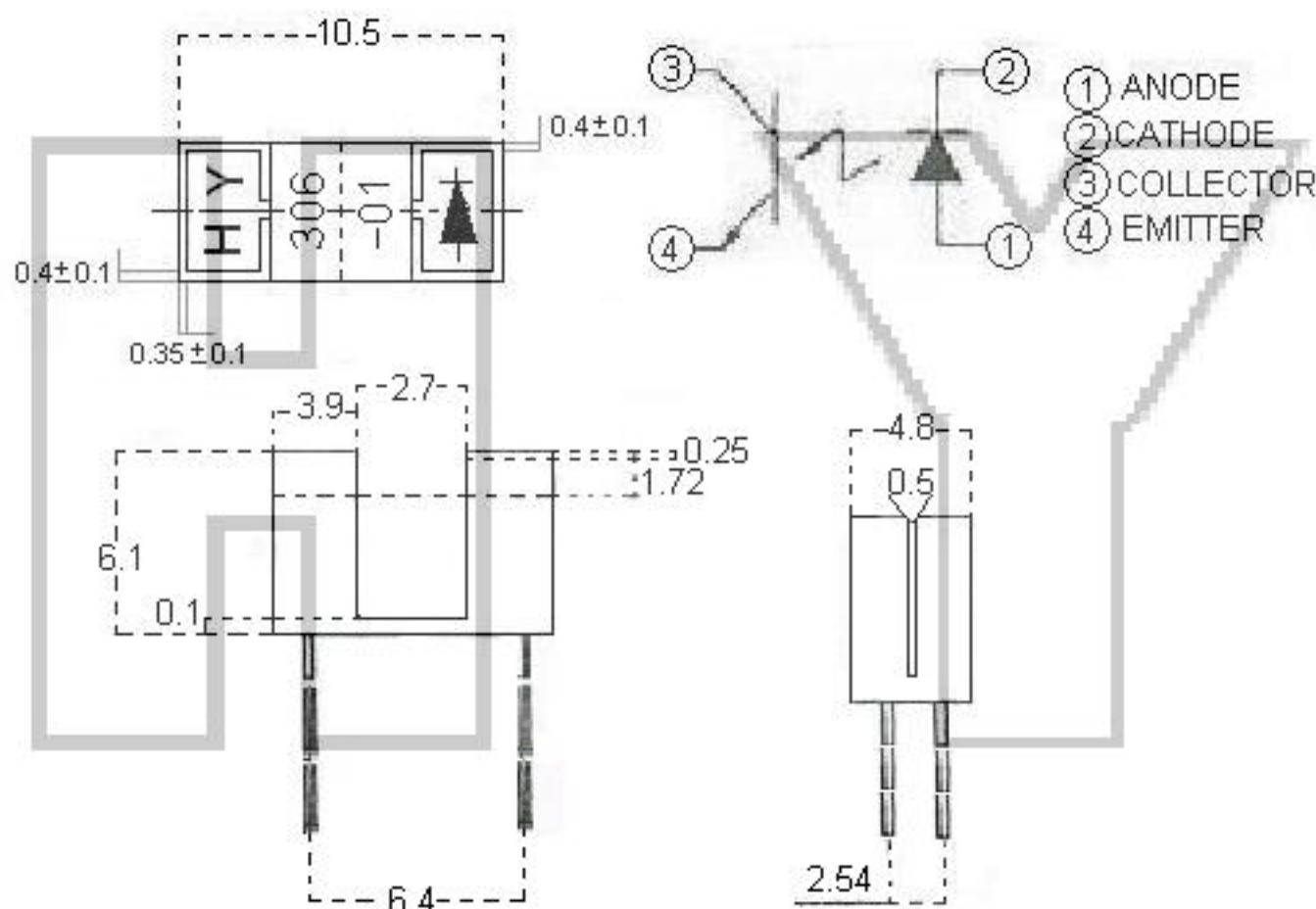
深圳市華強北路華強電子世界二樓 21C126 室 [Http://www.hyzt.com](http://www.hyzt.com) E-mail: hyzt@hyzt.com

FEATURES

- * NON-CONTACT SWITCHING.
- * FOR DIRECT PC BOARD OR DUAL-IN-LINE SOCKET MOUNTING.
- * FAST SWITCHING SPEED.

PACKAGE DIMENSIONS

HY306—01



NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ ($.010''$) unless otherwise noted.

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ABSOLUTE MAXIMUM RATINGS AT TA=25°C

HY306-01

PARAMETER	MAXIMUM RATING	UNIT
IR Diode Continuous Forward Current	60	mA
IR Diode Reverse Voltage	5	V
Transistor Collector Current	20	mA
Transistor Power Dissipation	100	mW
IR Diode Peak Forward Current (Pulse Wide = 10 μ S, 300 pps)	1	A
Diode Power Dissipation	75	mW
Phototransistor Collector-Emitter Voltage	30	V
Phototransistor Emitter-Collector Voltage	5	V
Operating Temperature Range	-25°C to + 85°C	
Storage Temperature Range	-40°C to + 100°C	
Lead Soldering Temperature [1.6mm(.063") From Body, Plastic Housing Exclude]	260°C for 5 Seconds	

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ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C

PARAMETER		SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
INPUT LED							
Forward Voltage		V _F		1.2	1.6	V	I _F = 20mA
Reverse Current		I _R			100	μA	V _R = 5V
OUTPUT PHOTOTRANSISTOR							
Collector-Emitter Breakdown Voltage		V(BR) _{CEO}	30			V	I _C = 1mA
Emitter-Collector Breakdown Voltage		V(BR) _{ECO}	5			V	I _E = 100 μA
Collector-Emitter Dark Current		I _{CEO}			100	nA	V _{CE} = 10V
COUPLER							
Collector-Emitter Saturation Voltage		V _{CE(SAT)}			0.4	V	I _C = 2.5mA I _F = 20mA
On State Collector Current		I _{C(ON)}	5.0			mA	V _{CE} = 5V I _F = 20mA
Response Time	Rise Time	t _r		3	15	μs	V _{CE} = 5V, I _C = 2mA
	Fall Time	t _f		4	20		R _L = 100Ω

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Fig.1 Power Dissipation vs. Ambient Temperature

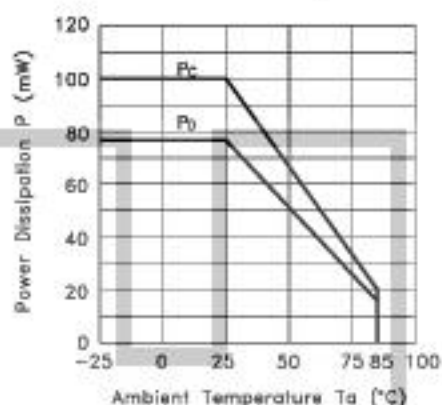


Fig.2 Forward Current vs. Forward Voltage

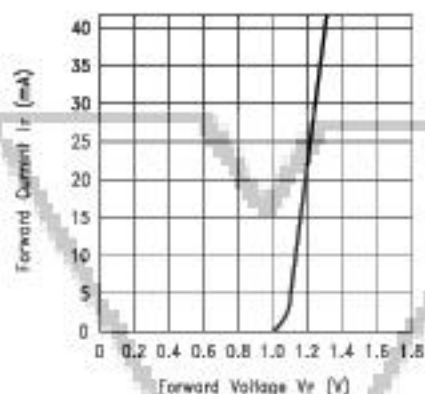


Fig.3 Collector Current vs. Collector-emitter Voltage

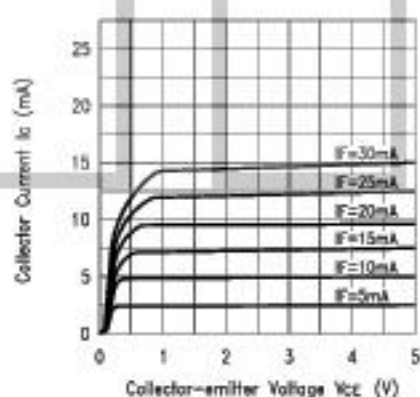
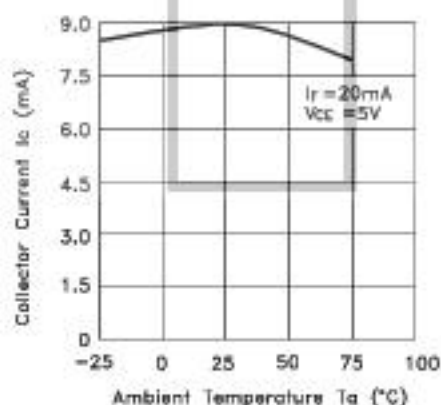


Fig.4 Collector Current vs. Ambient Temperature



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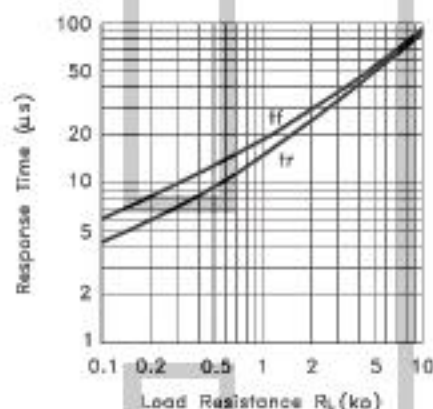
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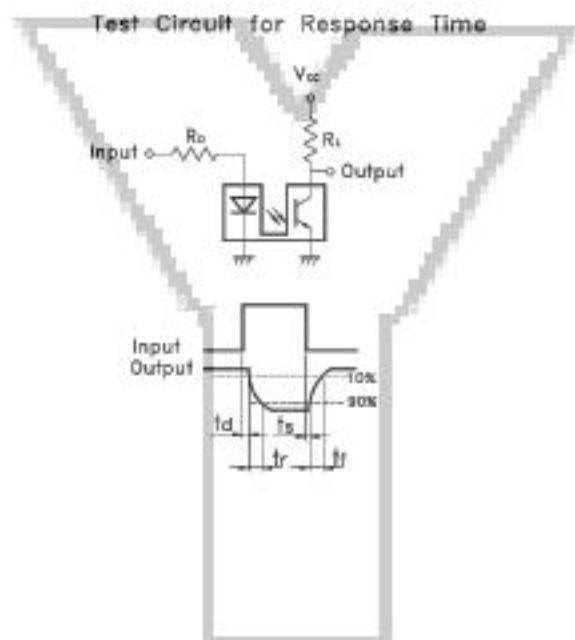
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Fig.5 Response Time vs.
Load Resistance



Test Circuit for Response Time



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