

# Si Phototransistor

# KPT811H

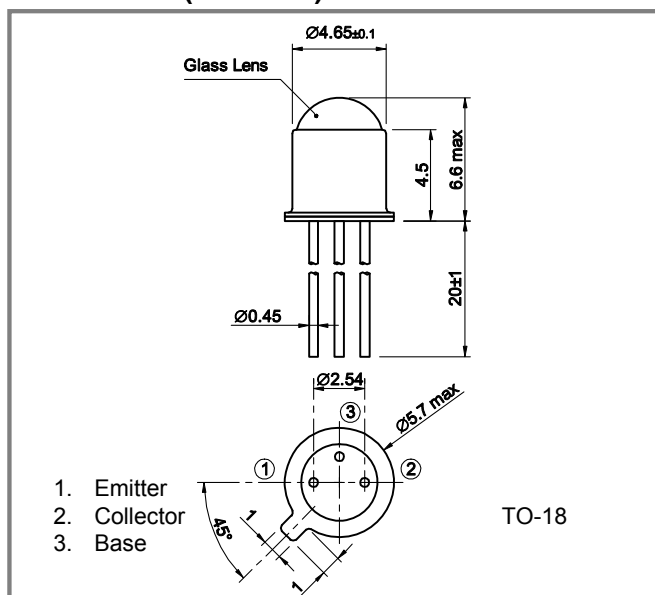
### Features

- NPN phototransistor packaged in a 3 leads TO-18 for the base connection
- Glass lens
- Low leak current

### Applications

- Optical switches
- Optical encoders
- Photo-isolator
- Camera stroboscopes
- Infrared sensors
- Automatic control apparatus

### Dimensions (unit: mm)



### Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Note
Collector-emitter voltage	$V_{ce0}$	20	V	
Emitter-collector voltage	$V_{eco}$	5	V	
Collector-base voltage	$V_{cbo}$	30	V	
Emitter-base voltage	$V_{ebo}$	5	V	
Operating temperature	$T_{opr}$	-25 to +125	°C	Avoid dew condensation
Storage temperature	$T_{stg}$	-55 to +150	°C	Avoid dew condensation

### Electrical and Optical Characteristics (Ta=25 °C unless otherwise noted)

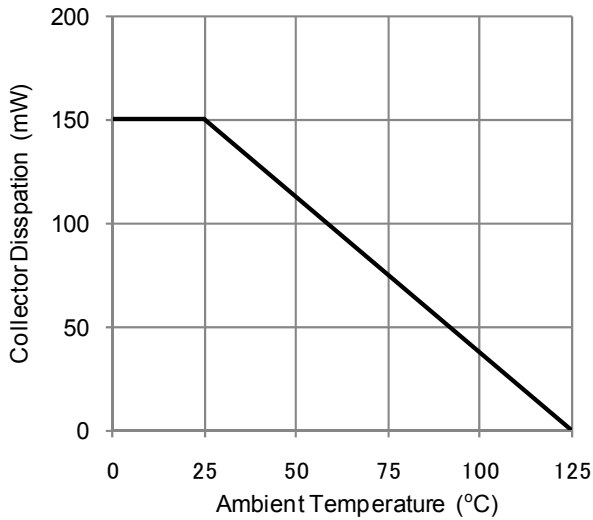
Parameter	Symbol	Min.	Typ.	Max	Unit	Test Conditions
Active area	S	0.64 x 0.64			mm <sup>2</sup>	
Operating voltage	$V_{opr}$	5			V	
Sensitive wavelength	$\lambda$	400	800 ( $\lambda_p$ )	1000	nm	$\lambda_p$ =Peak wavelength
Photocurrent	$I_L$	-	2	-	mA	$V_{ce} = 5V$ , 100lx(@2856K)
Dark current	$I_{ceo}$	-	100	200	nA	$V_{ce} = 20V$
Current amplification factor	$h_{FE}$	600	-	-		$V_{ce} = 5V$ , $I_c=2mA$
Collector-emitter saturation voltage	$V_{ce(sat)}$	-	-	0.4	V	$I_c=0.1mA$
Rise/fall time	$t_r, t_f$	-	5	-	$\mu s$	$V_{ce} = 5V$ , $I_c=2mA, R_L=100\Omega$

Specifications are subject to change without notice.

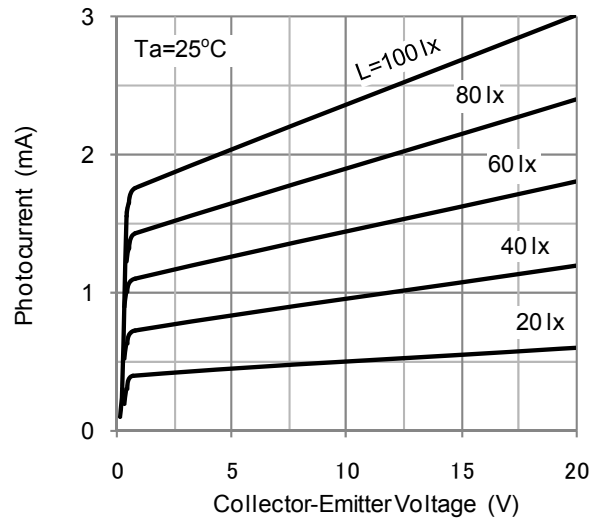
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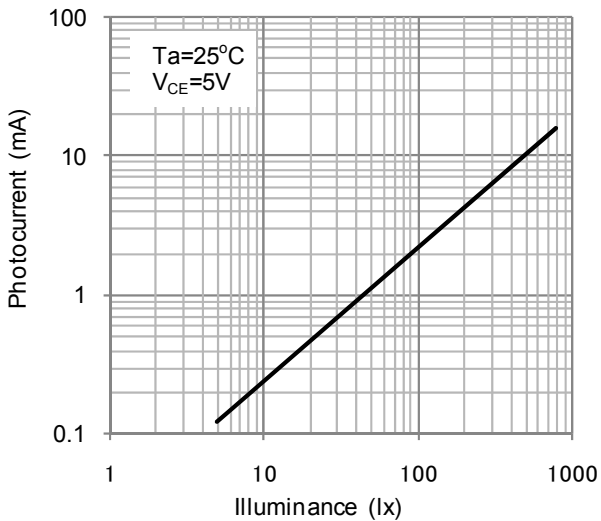
**Collector Dissipation-Ambient Temperature**



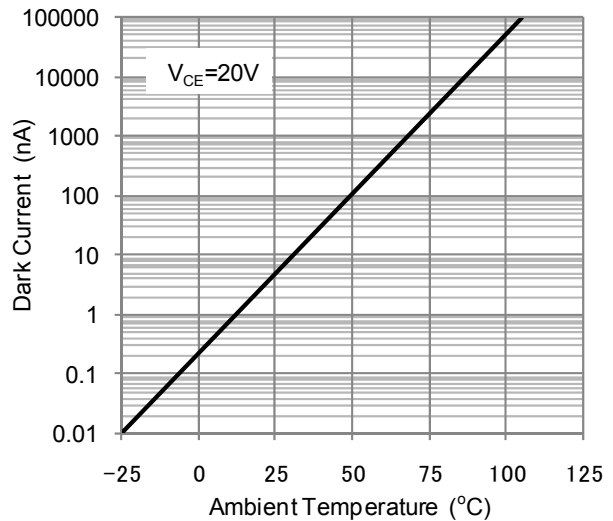
**Photocurrent - Collector-Emitter Voltage**



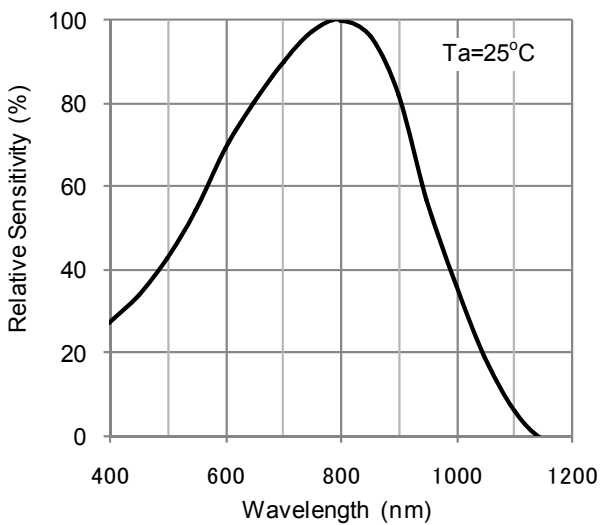
**Photocurrent - Illuminance**



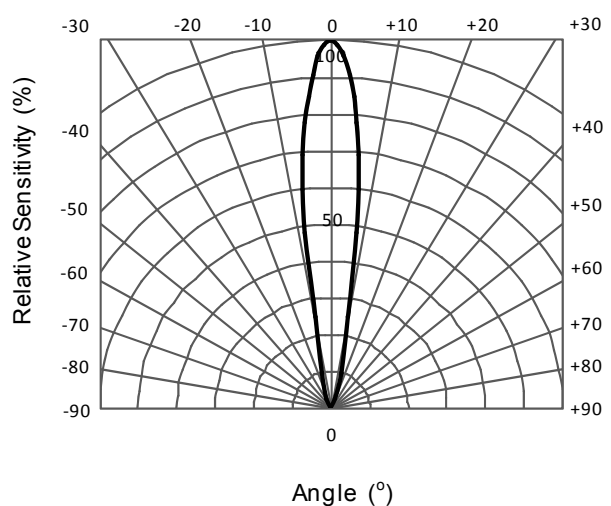
**Dark Current - Ambient Temperature**



**Spectral Sensitivity**



**Directivity**



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**Contacts:**

[www.kyosemi.co.jp](http://www.kyosemi.co.jp) / [info@kyosemi.co.jp](mailto:info@kyosemi.co.jp)

Kansai Sales Office: 949-2 Ebisu-cho, Fushimi-ku, Kyoto, 612-8201 Japan Tel: +81 75 605 7311 Fax: +81 75 605 7312 (Overseas Sales Dept.)

Tokyo Sales Office: 24th Sky Building, 2nd Floor, 1-34-3 Shinjuku, Shinjuku-ku, Tokyo 160-0022 Japan Tel: +81 3 5312 5360 Fax: +81 3 5312 5367

Eniwa Operation: 385-31 Toiso, Eniwa-shi, Hokkaido 061-1405 Japan Tel: +81 123 34 3111 Fax: +81 123 34 2110

Kyosemi Opto America Corp: 3003 Bunker Hill Lane, Suite 102, Santa Clara, CA 95054 USA Tel: +1 408 492 1486 Fax: +1 408 492 9843