

# Technical Data Sheet

## Side Face Dual Phototransistor PT2408B/H2

**■ Descriptions**

**PT2408B/H2** is a high speed and high sensitive NPN silicon dual phototransistor molded in a black plastic package with plat side view. The device is spectrally matched with IR emitters.



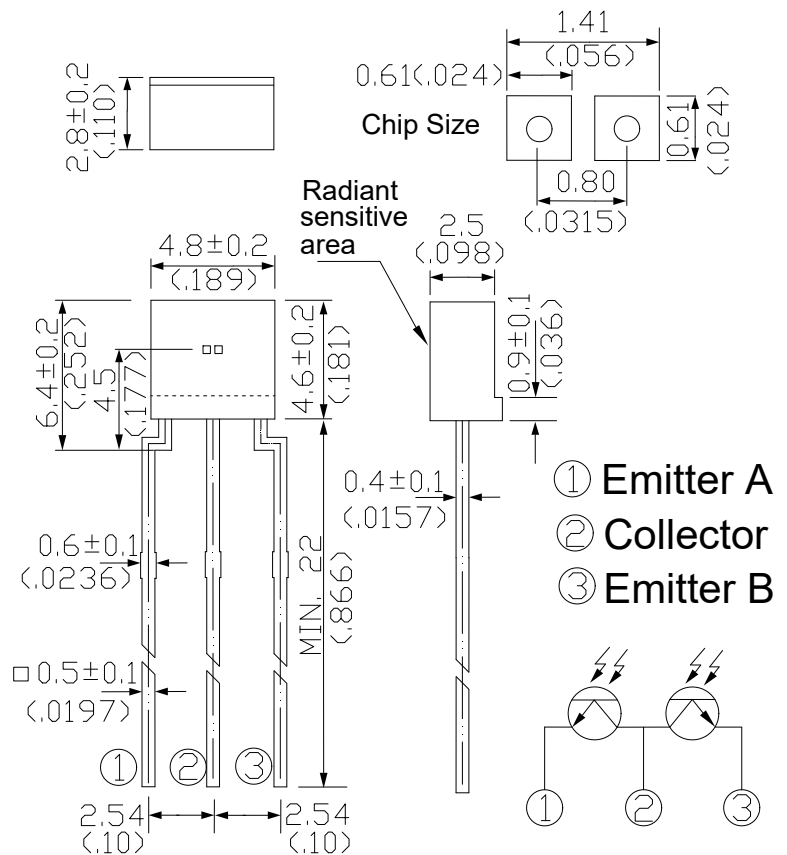
**■ Features**

- Fast response time
- High photo sensitivity
- Pb Free
- The product itself will remain within RoHS compliant version.

**■ Applications**

- Infrared applied system
- Optoelectronic Switch
- Mouse

**■ Package Dimensions**



Note: 1. All dimensions are in millimeters(inches)  
 2. Tolerances unless dimensions ± 0.25mm(.01")

### ■ Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	$V_{CEO}$	30	V
Emitter-Collector-Voltage	$V_{ECO}$	5	V
Collector Current	$I_c$	20	mA
Lead Soldering Temperature	$T_{sol}$	260	°C
Operating Temperature	$T_{opr}$	-20~+85	°C
Storage Temperature	$T_{stg}$	-40~+85	°C

Notes:\*1:Soldering time  $\leq$  5 seconds.

### ■ Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Units	Condition
Range of Spectral Bandwidth	$\lambda_{0.5}$	840	--	1100	nm	
Wavelength of Peak Sensitivity	$\lambda_p$	--	940	--	nm	
Collector – Emitter Breakdown Voltage	$BV_{CEO}$	30	--	--	V	$I_c=500\mu A$ , $I_b=0$
Emitter-Collector Breakdown Voltage	$BV_{ECO}$	5	--	--	V	$I_c=50\mu A$ , $I_b=0$
Collector Dark Current	$I_{CEO}$	--	--	100	nA	$V_{CE}=10V$ , $H=0mw/cm^2$
Collector-Emitter Saturation Voltage	$V_{CE(S)}$	-	--	0.3	V	$I_c=5mA$ , $I_B=1mA$
On State Collector Current	$I_{C(on)}$	0.5	1.5	--	mA	$E_e=1mW/cm^2$ , $V_{CE}=5V$
DC Current Amplification Factor	$H_{FE}$	1100	--	1700		$V_{CE}=5V$ , $I_C=2mA$
Rise/Fall Time	$t_r/t_f$	--	15/15		$\mu S$	$V_{CE}=5V$ , $I_C=1mA$ $R_L=1000\Omega$

■ Typical Electro-Optical Characteristics Curves

Fig.1 Collector Power Dissipation vs. Ambient Temperature

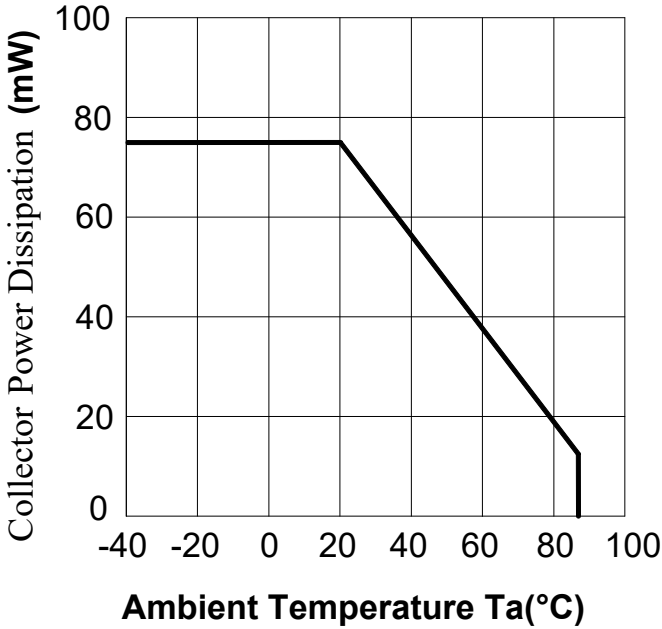


Fig.2 Spectral Sensitivity

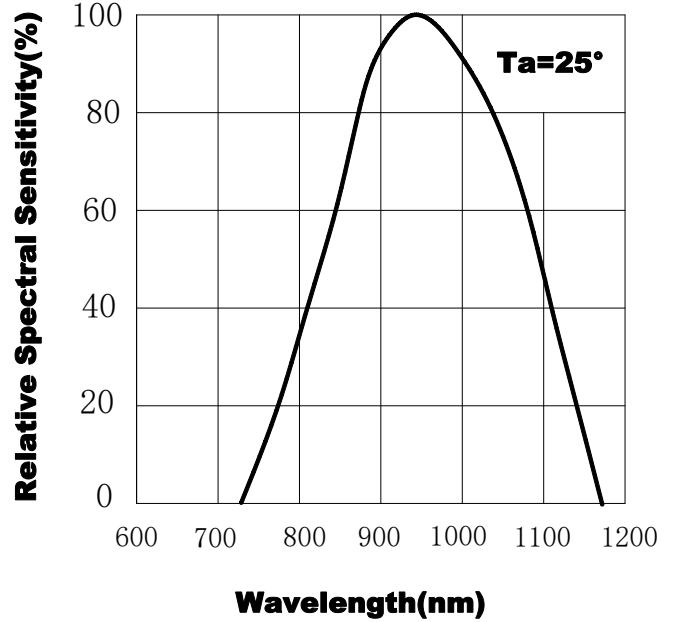


Fig.3 Relative Collector Current vs. Ambient Temperature

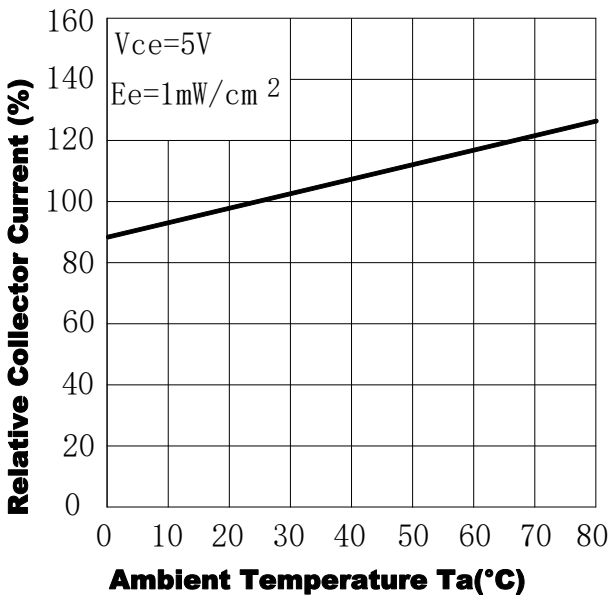


Fig.4 Collector Current vs. Irradiance

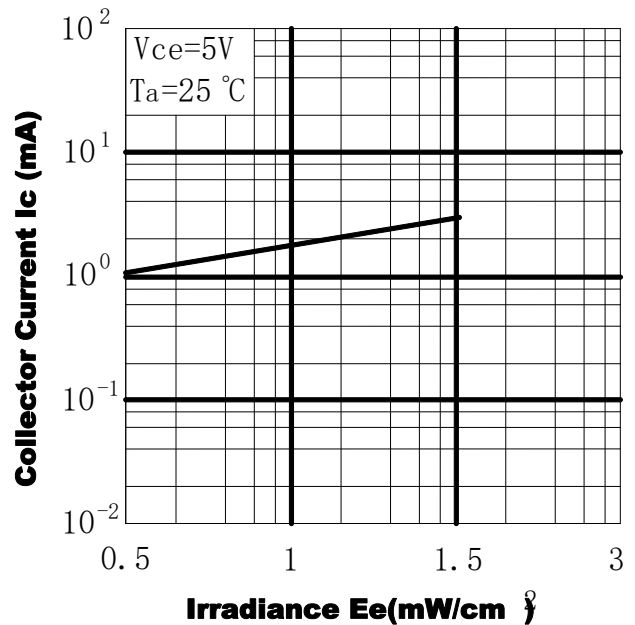


Fig.5 Collector Dark Current vs.  
Ambient Temperature

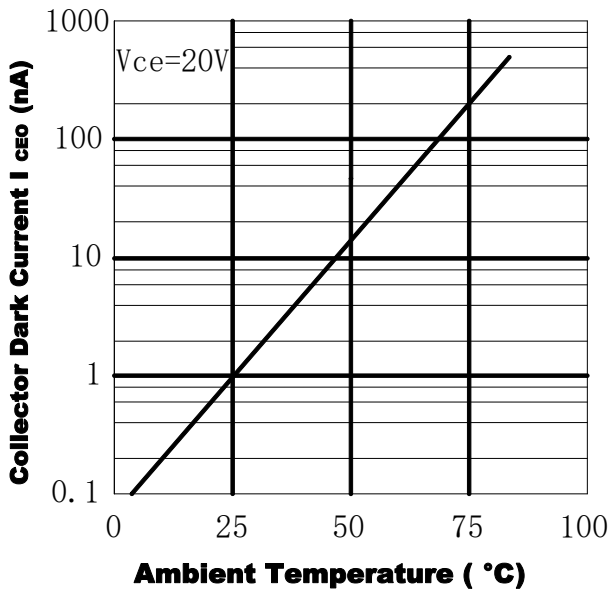
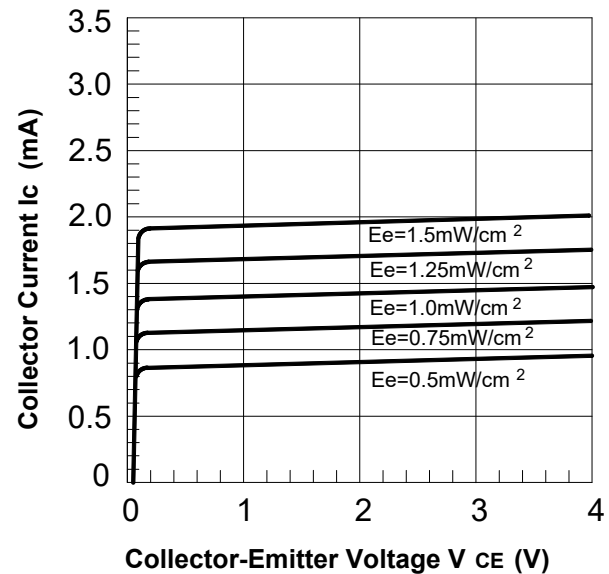


Fig.6 Collector Current vs.  
Collector-Emitter Voltage



## ■ Packing Quantity Specification

1. 500PCS/1Bag

## ■ Notes

1. Above specification may be changed without notice. SHUGUAN will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. SHUGUAN assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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