

Features

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

Descriptions

- PT234-6B is a high speed and high sensitive NPN silicon phototransistor molded in a standard $\phi 3$ mm package . Due to its black epoxy the device is sensitive to infrared radiation.

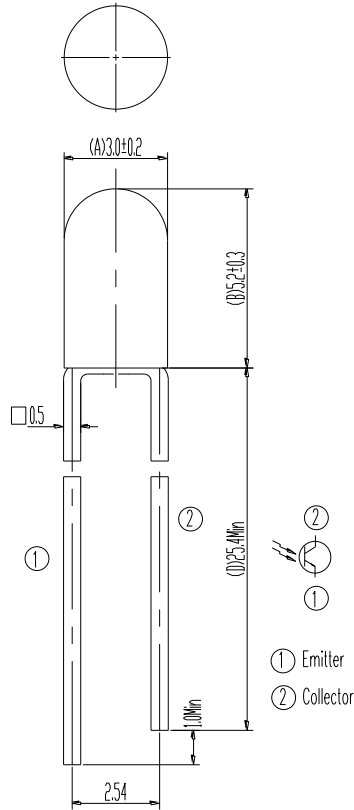
Applications

- Optoelectronic switch
- VCRs ,Video camera
- Floppy disk drive
- Infrared applied system

Device Selection Guide

LED Part No.	Chip	Lens Color
	Material	
PT	Silicon	Black

Package Dimensions



- Notes:** 1.All dimensions are in millimeters
2.Tolerances unless dimensions ± 0.25 mm

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Collector- Voltage	V_{ECO}	5	V
Collector Current	I_C	20	mA
Operating Temperature	T_{opr}	$-25 \sim +85$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-40 \sim +85$	$^\circ\text{C}$
Soldering Temperature	T_{sol}	260	$^\circ\text{C}$
Power Dissipation at(or below) 25 $^\circ\text{C}$ Free Air Temperature	P_d	75	mW

Notes: *1: Soldering time ≤ 5 seconds.

Electro-Optical Characteristics (Ta=25°C)

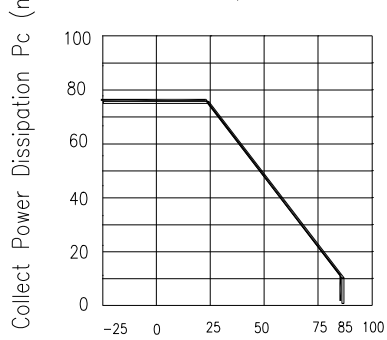
Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=100\mu A$ $E_e=0mW/cm^2$	30	----	----	V
Emitter-Collector Breakdown Voltage	BV_{ECO}	$I_E=100\mu A$ $E_e=0mW/cm^2$	5	----	----	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2mA$ $E_e=1mW/cm^2$	----	----	0.4	V
Rise Time	t_r	$V_{CE}=5V$ $I_C=1mA$ $R_L=1000\Omega$	----	15	----	μS
Fall Time	t_f		----	15	----	
Collector Dark Current	I_{CEO}	$V_{CE}=20V$ $E_e=0mW/cm^2$	----	----	100	nA
On State Collector Current	$I_{C(on)}$	$V_{CE}=5V$ $E_e=1mW/cm^2$	0.7	----	7.07	mA
Wavelength of Peak Sensitivity	λ_p	----	----	940	----	nm
Rang of Spectral Bandwidth	$\lambda_{0.5}$	----	840	----	1200	nm

Rank

Parameter	Symbol	Min	Max	Unit	Test Condition
G	$I_{C(ON)}$	0.70	1.90	mA	$E_e=1mW/cm^2$ $V_{CE}=5V$
H		1.14	2.60		
J		1.77	3.61		
K		2.67	5.07		
L		4.18	7.07		

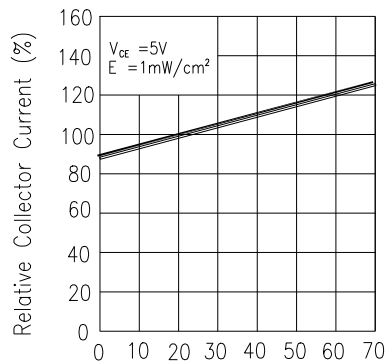
Typical Electro-Optical Characteristics Curves

Fig.1 Collector Power Dissipation vs. Ambient Temperature



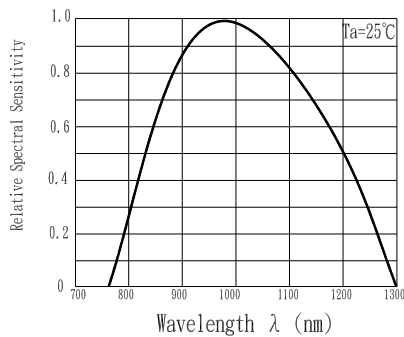
Ambient Temperature T_a (°C)

Fig. 3 Relative Collector Current vs. Ambient Temperature



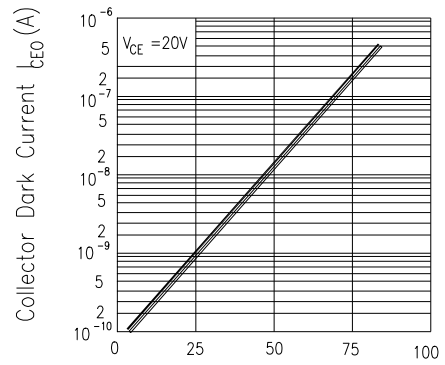
Ambient Temperature T_a (°C)

Fig.5 Spectral Sensitivity



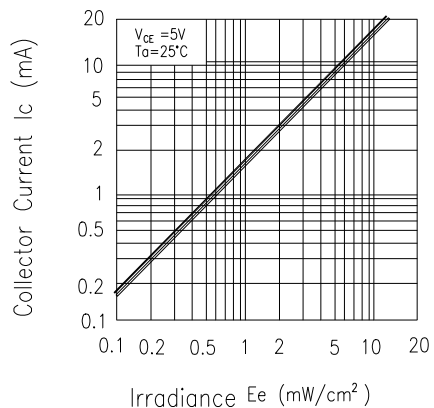
Wavelength λ (nm)

Fig.2 Collector Dark Current vs. Ambient Temperature



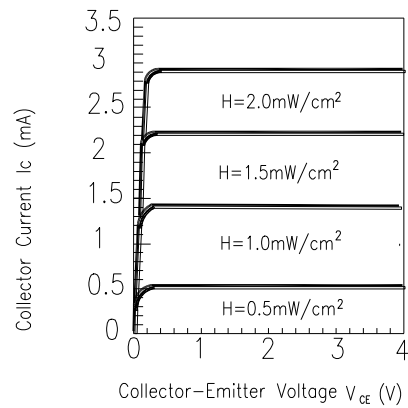
Ambient Temperature T_a (°C)

Fig.4 Collector Current vs. Irradiance



Irradiance E_e (mW/cm²)

Fig.6 Collector Current vs. Collector-Emitter Voltage



Collector-Emitter Voltage V_{ce} (V)

Packing Quantity Specification

1. 1000 Pcs/1Bag , 4 Bags/1Box
2. 10 Boxes/1Carton

Label Form Specification

	EVERLIGHT	
CPN: P/N:		
		
PT234-6B		
QTY:		CAT:
		HUE:
LOT NO:		REF:
		
Reference		
		

CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks

HUE: Peak Wavelength

REF: Reference

LOT No: Lot Number

X: Month

Reference: Identify Label Number

Notes

1. Above specification may be changed without notice. EVERLIGHT 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. EVERLIGHT 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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