

Side Face Silicon Phototransistor PT5529B/L2/H2-F

Features

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

Description

- PT5529B/L2/H2-F is a high speed and high sensitive dual phototransistor molded in a black plastic package with plat side view.
- The device is spectrally matched with IR emitters.

Applications

- .Mouse
- .Optoelectronic Switch
- .Photo Interrupter

Device Selection Guide

Chip Materials	Lens Color
Silicon	Black

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Collector-Voltage	V_{ECO}	5	V
Collector Current	I_C	20	mA
Operating Temperature	T_{opr}	-40 ~ +85°C	°C
Storage Temperature	T_{stg}	-40 ~ +85°C	°C
Lead Soldering Temperature(*1)	T_{sol}	260	°C
Power Dissipation at (or below) 25°C Free Air Temperature	P_D	75	mW

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

Electro-Optical Characteristics (Ta=25°C)

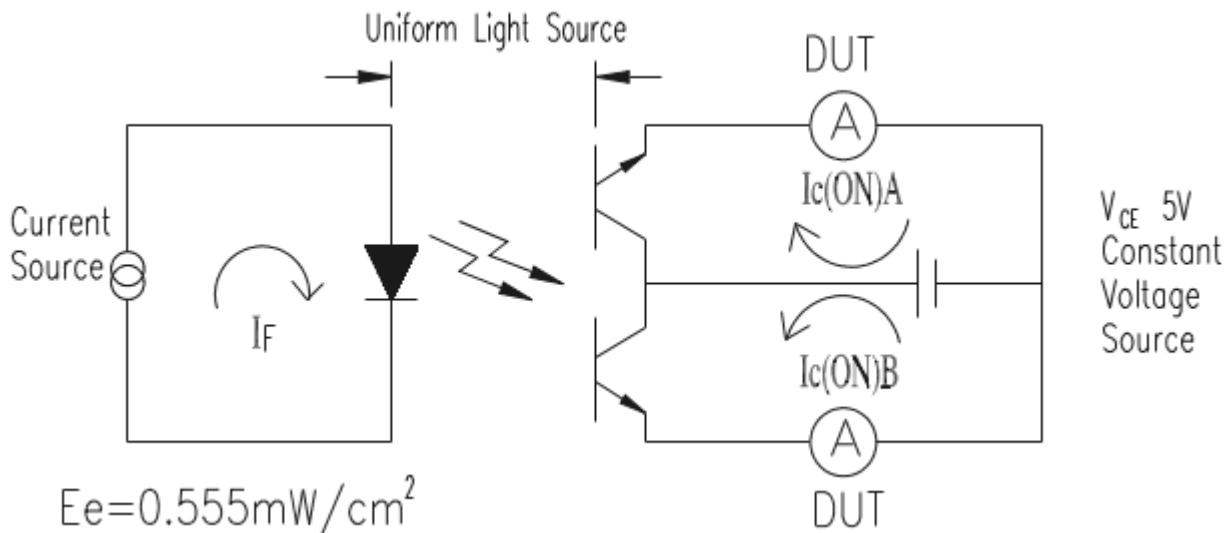
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Collector – Emitter Breakdown Voltage	BV_{CEO}	30	-----	-----	V	$I_C=100\mu A$ $E_e=0mW/cm^2$
Emitter-Collector Breakdown Voltage	BV_{ECO}	5	-----	-----	V	$I_E=100\mu A$ $E_e=0mW/cm^2$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-----	-----	0.4	V	$I_C=2mA$ $E_e=1mW/cm^2$
Rise Time	t_r	-----	15	-----	μS	$V_{CE}=5V$ $I_C=1mA$ $RL=1000\Omega$
Fall Time	t_f	-----	15	-----		
Collector Dark Current	I_{CEO}	-----	-----	100	nA	$E_e=0mW/cm^2$ $V_{CE}=20V$
On State Collector Current	$I_{C(on)}$	129	-----	1085	μA	$E_e=0.555mW/cm^2$ $V_{CE}=5V$
Rang Of Spectral Bandwidth	λ_P	-----	940	-----	nm	----
Wavelength of Peak Sensitivity	$\lambda_{0.5}$	760	-----	1100	nm	----

Test Method For On State Collector Current :

Condition : $E_e=0.555\text{mW/cm}^2$, $V_{CE}=5\text{V}$

Test Item : Collector Current [$I_{C(ON)}$]

Unit : μA



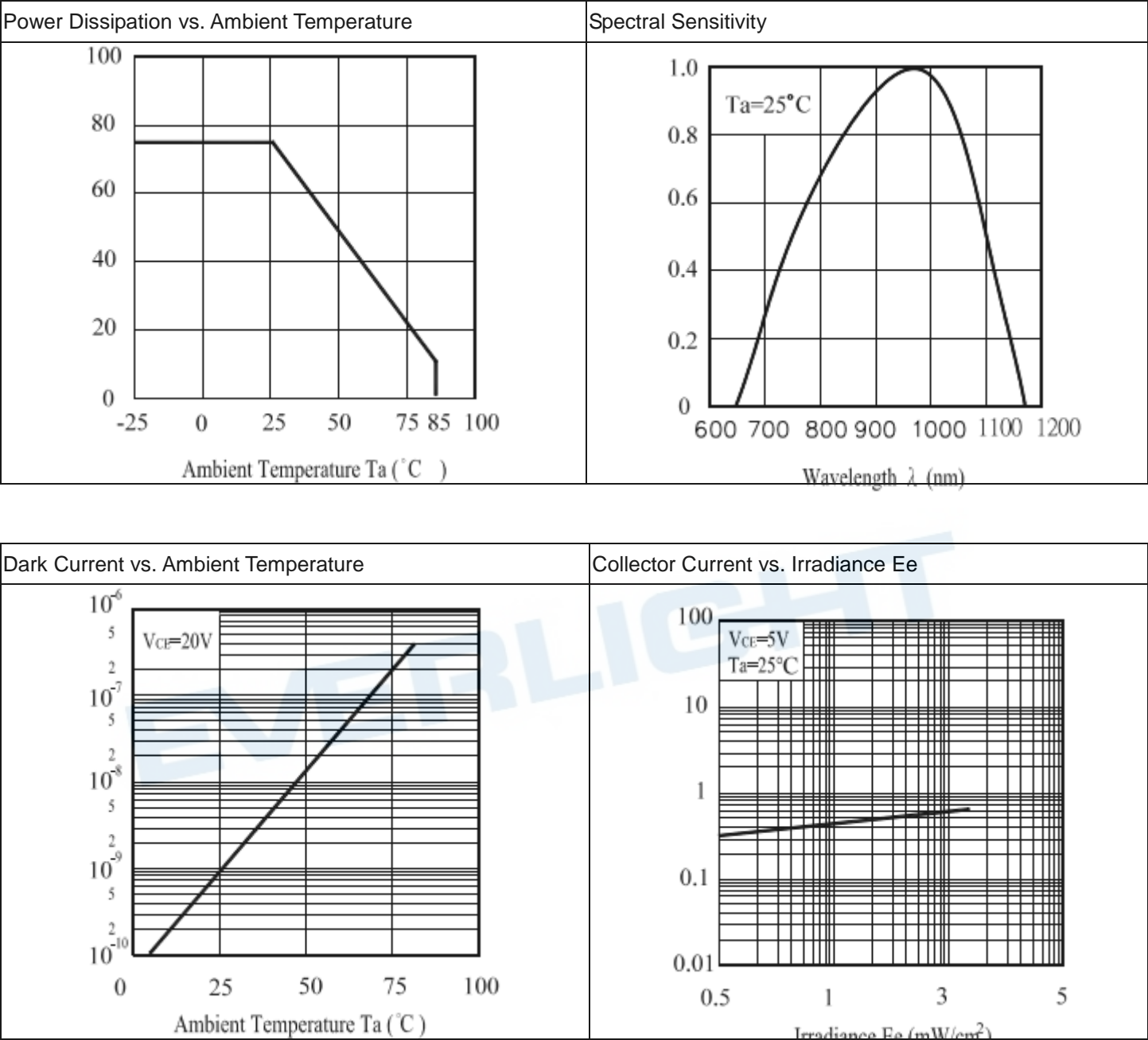
To Distinguish Intensity:

Condition: $V_{CE}=5\text{V}$ $E_e=0.555\text{mW/cm}^2$

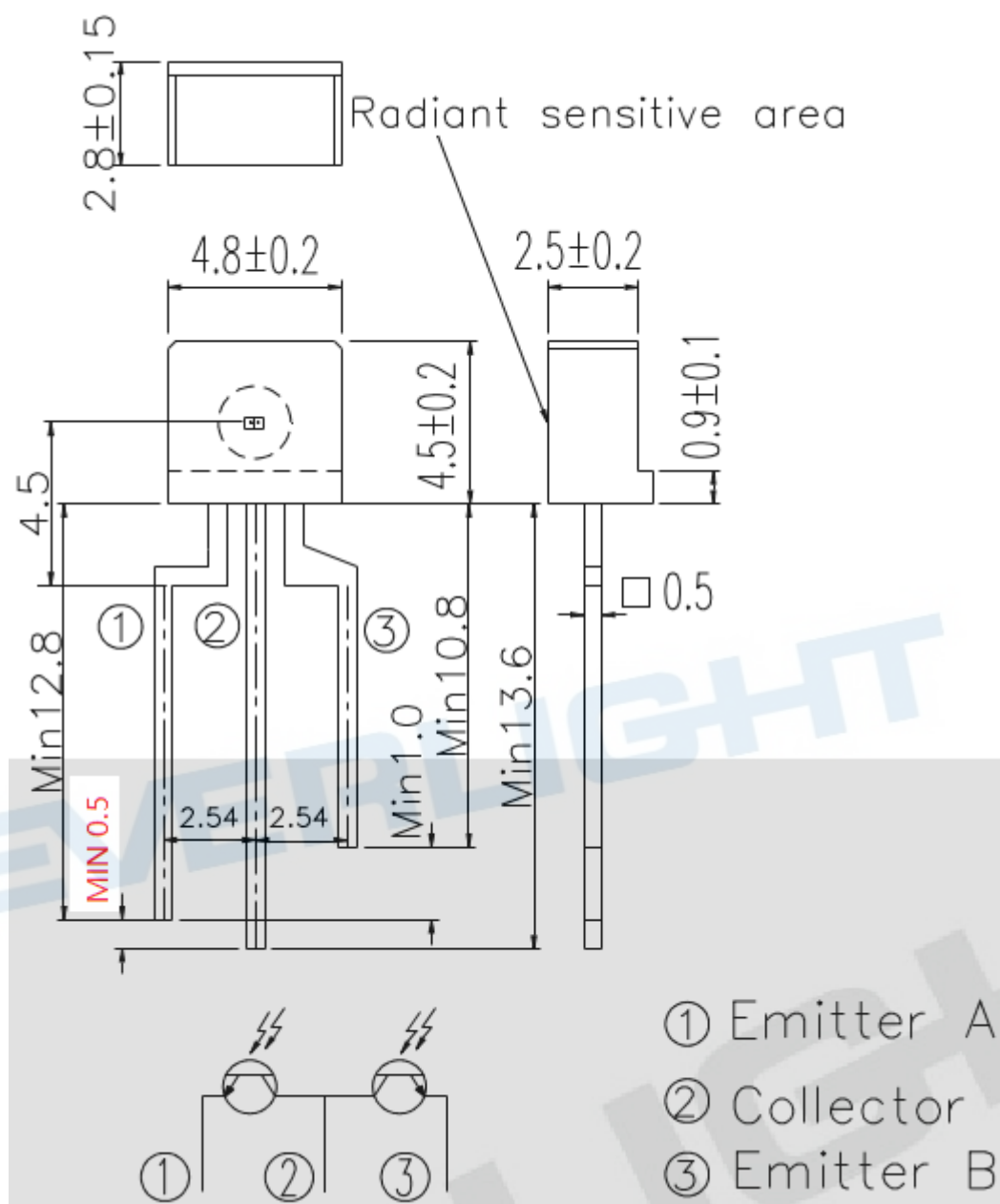
A Ranks

Ranks	Symbol	Min	Typ	Max	Unit	Test Condition
A1	$I_{C(ON)}$	129	---	226	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$
A2	$I_{C(ON)}$	195	---	306	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$
A3	$I_{C(ON)}$	262	---	380	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$
A4	$I_{C(ON)}$	330	---	461	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$
A5	$I_{C(ON)}$	398	---	544	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$
A6	$I_{C(ON)}$	468	---	625	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$
A7	$I_{C(ON)}$	536	---	703	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$
A8	$I_{C(ON)}$	604	---	785	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$
A9	$I_{C(ON)}$	673	---	862	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$
A10	$I_{C(ON)}$	742	---	944	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$
A11	$I_{C(ON)}$	812	---	1018	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$
A12	$I_{C(ON)}$	882	---	1085	μA	$E_e=0.555\text{mW/cm}^2$ $V_{CE}=5\text{V}$

Typical Electro-Optical Characteristics Curves



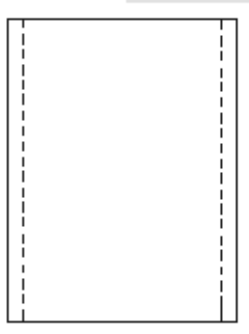
Package Dimension



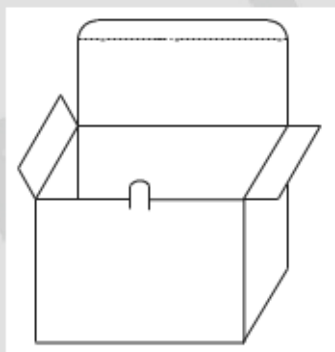
Note: 1. All dimensions are in millimeters
2. Tolerances unless dimensions $\pm 0.25\text{mm}$

Packing Specification

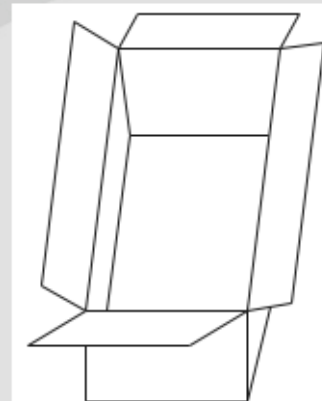
■ PE bag



■ Inner Carton



■ Outside Carton




Packing Quantity Specification

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

Label Form Specification

RoHS		EVERLIGHT	5
CPN: XXXXXXXXXXXXXXXXXXXX			
XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXX			
P/N: XXXXXXXXXXXX			
XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXX			
LOT NO:XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXX			
QTY: XXXXXXXXXXXX HUE: XXXXXXXXXXXX			
CAT: XXXXXXXXXXXX REF: XXXXXXXXXXXX			
REFERENCE: XXXXXXXXXXXXXXXX			
MADE IN XXXXXX			



- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- CAT: Luminous Intensity Rank
- HUE: Dom. Wavelength Rank
- REF: Forward Voltage Rank
- LOT No: Lot Number
- X: Month
- Reference: Identify Label Number

Notes

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