

Sidelooker Phototransistor PT928-6C-F



Features

- Fast response time
- High sensitivity
- Small junction capacitance
- Pb Free
- This product itself will remain within RoHS compliant version
- Compliance with EU REACH
- Compliance Halogen Free (Br < 900ppm, Cl < 900ppm, Br+Cl < 1500ppm)

Descriptions

- PT928-6C-F is a phototransistor in miniature package which is molded in a plastic with spherical top view lens
- The device is spectrally matched to infrared emitting diode

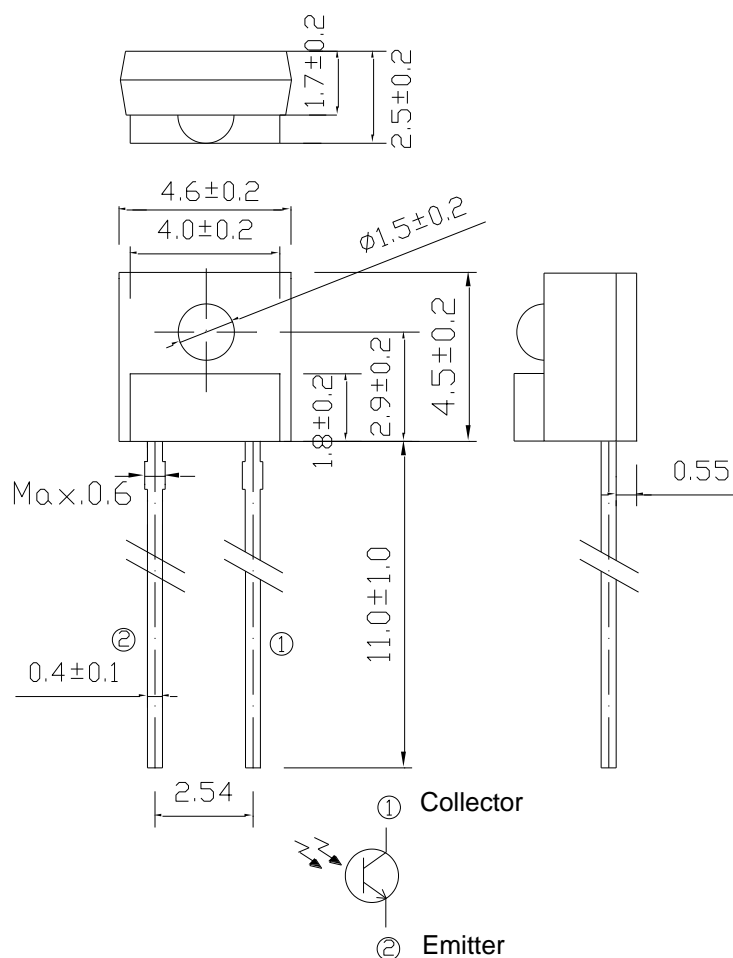
Applications

- Optoelectronic switch
- VCR, Video Camera
- Floppy disk drive
- Infrared applied system

Device Selection Guide

Part Category	Chip Material	Lens Color
PT	Silicon	Water Clear

Package Dimension



Notes: 1. All dimensions are in millimeters
2. Tolerances unless dimensions $\pm 0.3\text{mm}$

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 ~ +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ +85	$^\circ\text{C}$
Soldering Temperature *1	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
Rang of Spectral Bandwidth	$\lambda_{0.5}$	----	450	--	1100	nm
Wavelength of Peak Sensitivity	λ_p	----	--	940	--	nm
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 Dark Current	I_{CEO}	$V_{CE}=20V$ $E_e=0mW/cm^2$	--	--	100	nA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2mA$ $E_e=1mW/cm^2$	--	--	0.4	V
On State Collector Current	$I_{C(on)}$	$V_{CE}=5V$ $E_e=0.555mW/cm^2$	0.53	--	3.41	mA

Rank

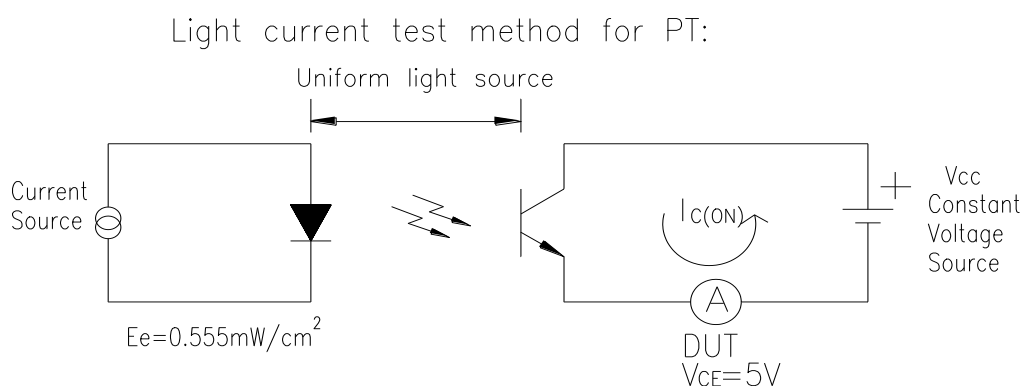
Condition: $V_{CE}=5V$, $E_e=0.555mW/cm^2$

Symbol	Condition	Ranks	Min.	Max.	Unit
$I_{C(ON)}$	$V_{CE}=5V$ $E_e=0.555mW/cm^2$	7-3	0.53	1.19	mA
		7-2	0.88	1.70	
		7-1	1.24	2.21	
		6-2	1.59	2.98	
		6-1	1.77	3.41	

Notes: This bin table is only for reference, not for specific bin shipment.

Test Method For $I_{C(ON)}$:

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



Typical Electro-Optical Characteristics Curves

Fig.1 Spectral Sensitivity

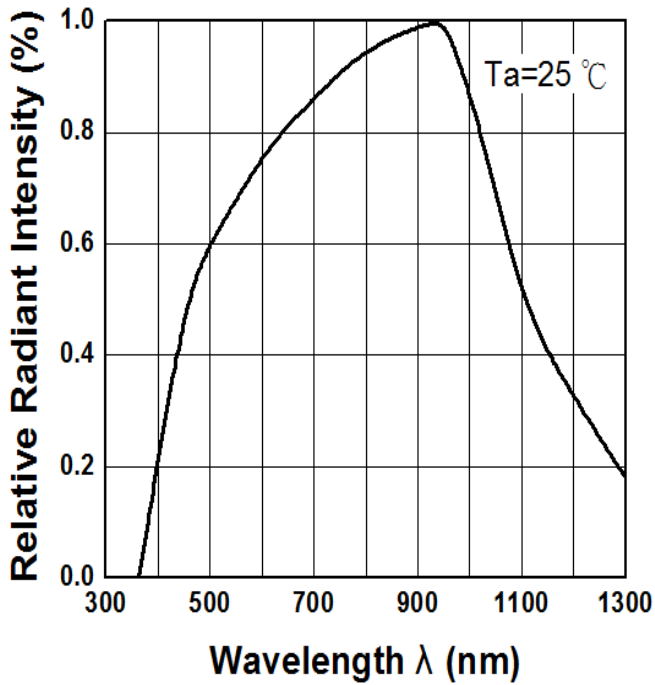


Fig.2 Collector Current vs Irradiance

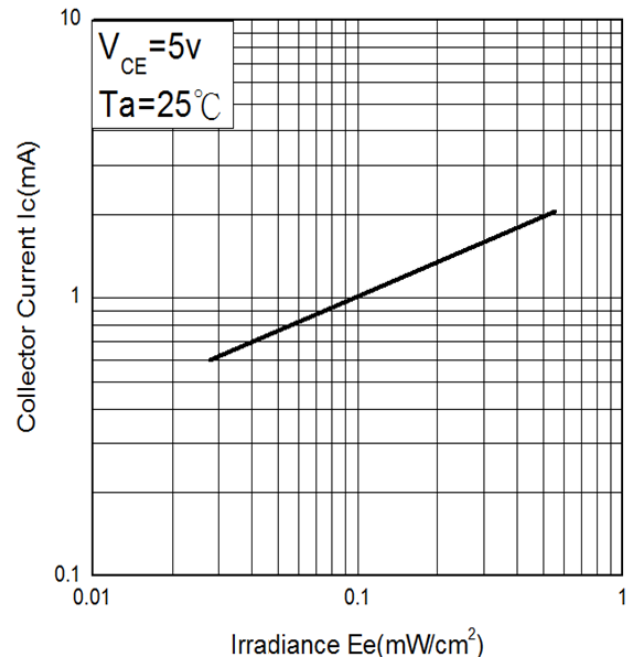
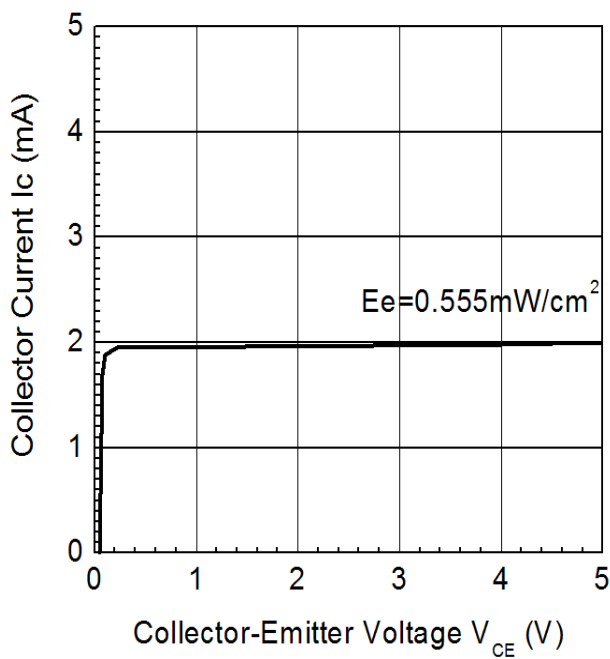


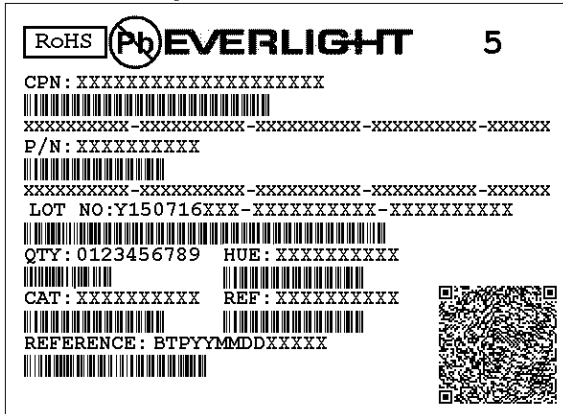
Fig.3 Collector Current vs. Collector-Emitter Voltage



Packing Quantity Specification

1000 pcs/bag, 10 bags/box
10 boxes/carton

Label Form Specification



- CPN: Customer Part Number
- P/N: Part Number
- QTY: Packing Quantity
- CAT: Ranks
- REF: Reference
- LOT No: Lot Number

Application Restrictions

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
3. When using this product, please observe the absolute maximum ratings and the instructions for use 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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