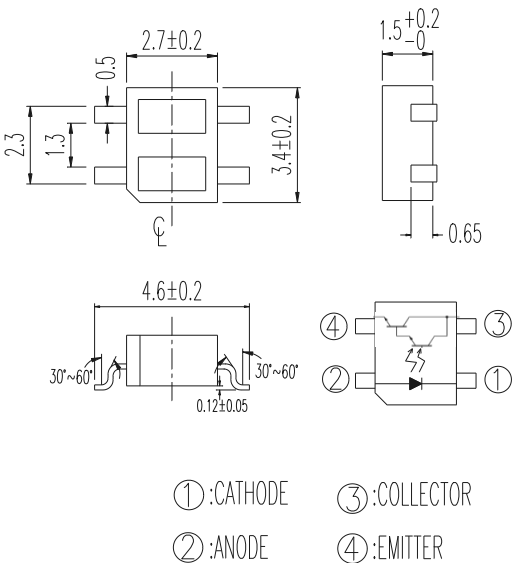


Package Dimensions



Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Rating	Unit
Input	Power Dissipation at(or below) 25°C Free Air Temperature	P_d	75	mW
	Reverse Voltage	V_R	5	V
	Forward Current	I_F	50	mA
	Peak Forward Current (*1) Pulse width $\leq 100\mu s$, Duty cycle=1%	I_{FP}	1	A
Output	Collector Power Dissipation	P_C	75	mW
	Collector Current	I_C	50	mA
	Collector-Emitter Voltage	B V_{CEO}	30	V
	Emitter-Collector Voltage	B V_{ECO}	5	V
Operating Temperature		T_{opr}	-40~+85	°C
Storage Temperature		T_{stg}	-40~+90	°C
Lead Soldering Temperature (*2)		T_{sol}	260	°C

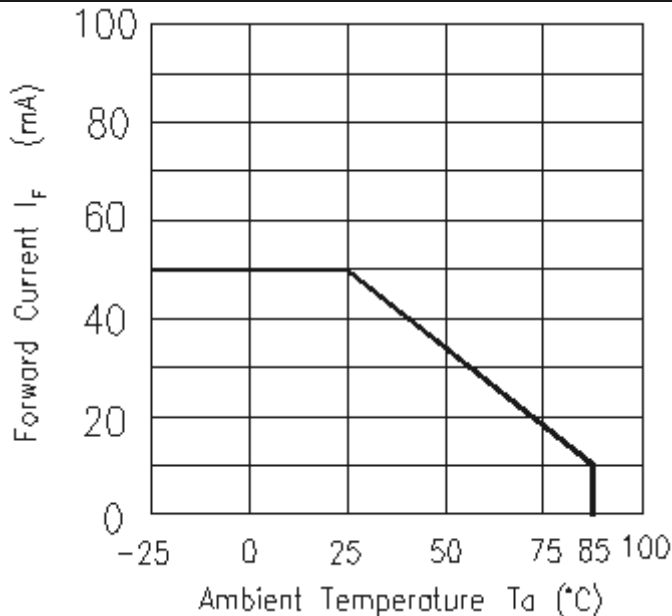
Notes: (* 1) $t_w=100 \mu sec.$, $T=10 msec.$ (* 2) $t=5 Sec$

Electro-Optical Characteristics (Ta=25°C)

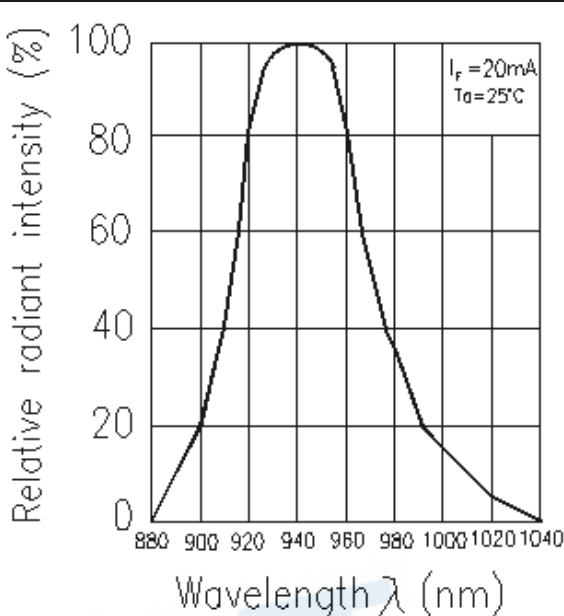
Parameter		Symbol	Min.	Typ.	Max.	Unit	Condition
Input	Forward Voltage	V_F	---	1.2	1.6	V	$I_F=20\text{mA}$
	Reverse Current	I_R	---	---	10	μA	$V_R=5\text{V}$
	Peak Wavelength	λ_p	---	940	---	nm	---
Output	Dark Current	I_{CEO}	---	---	100	nA	$V_{CE}=10\text{V}$
	C-E Saturation Voltage	$V_{CE(sat)}$	---	---	1	V	$I_C=2\text{mA}$ $E_e=1\text{mW/cm}^2$
Transfer Characteristics	Light Current	$I_C(ON)$	0.5	---	15.0	mA	$V_{CE}=2\text{V}$ $I_F=4\text{mA}$
	Leakage Current	I_{CEOD}	---	---	5	μA	$V_{CE}=2\text{V}$ $I_F=4\text{mA}$
	Rise time	t_r	---	20	---	$\mu\text{ sec}$	$V_{CE}=2\text{V}$ $I_C=0.1\text{mA}$ $R_L=1\text{K}\Omega$, $d=1\text{mm}$
	Fall time	t_f	---	20	---	$\mu\text{ sec}$	

Typical Electrical/Optical/Characteristics Curves for IR

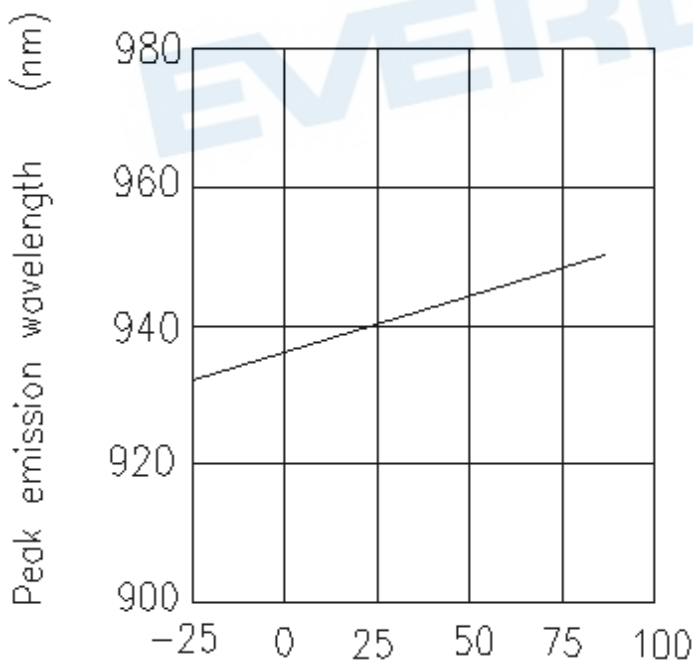
Forward Current vs. Ambient Temperature



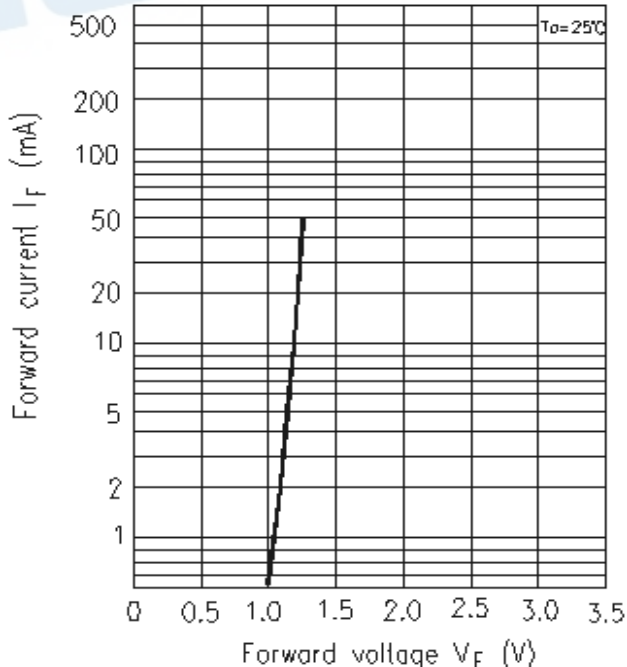
Spectral Distribution

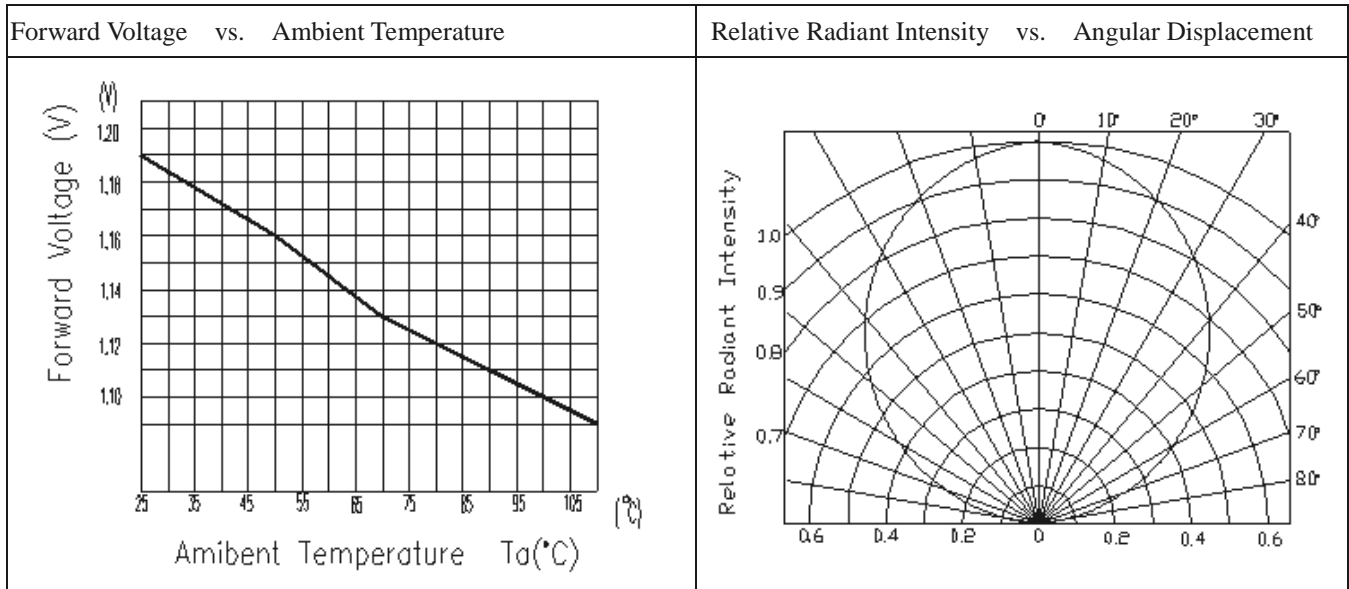


Peak Emission Wavelength vs. Ambient Temperature

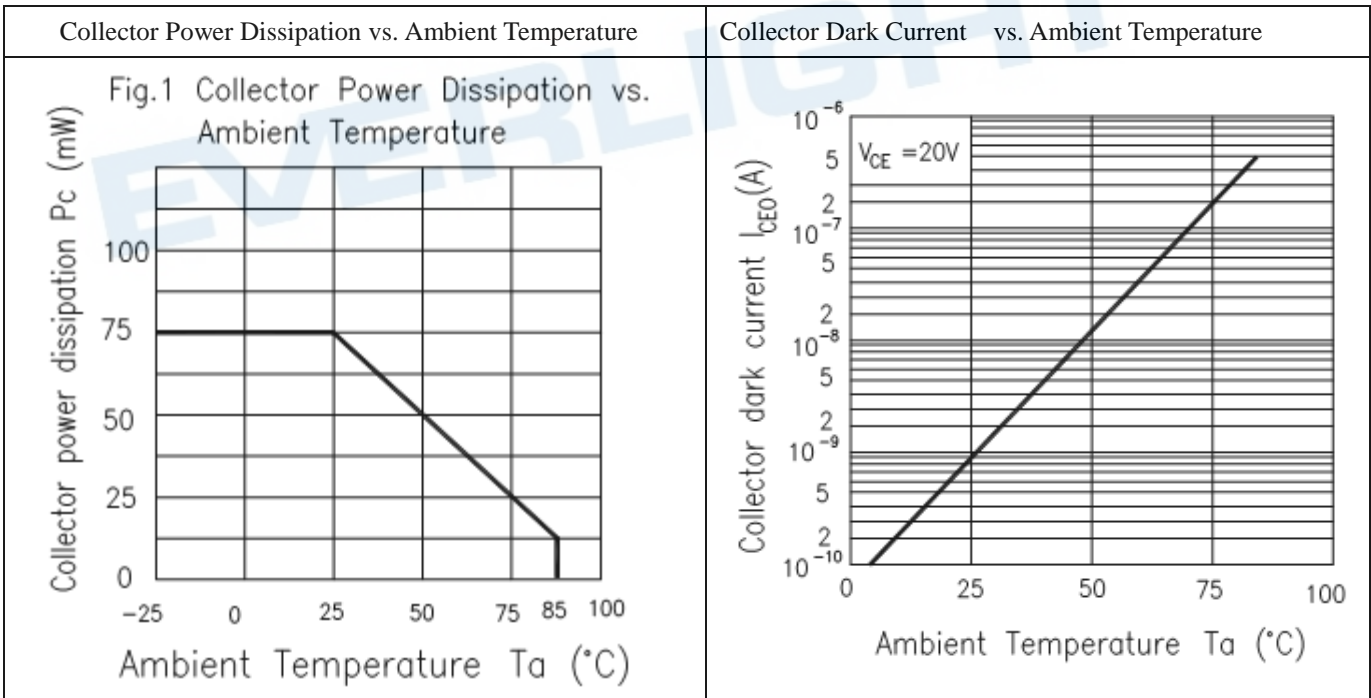


Forward Current vs. Forward Voltage

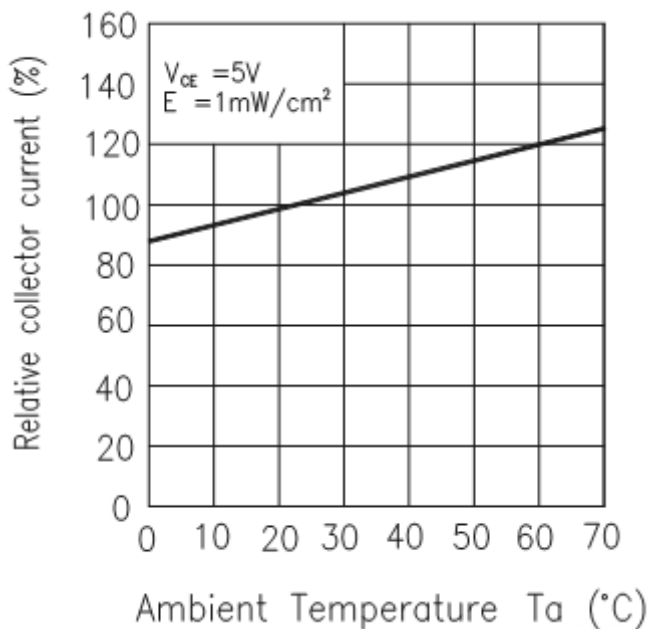




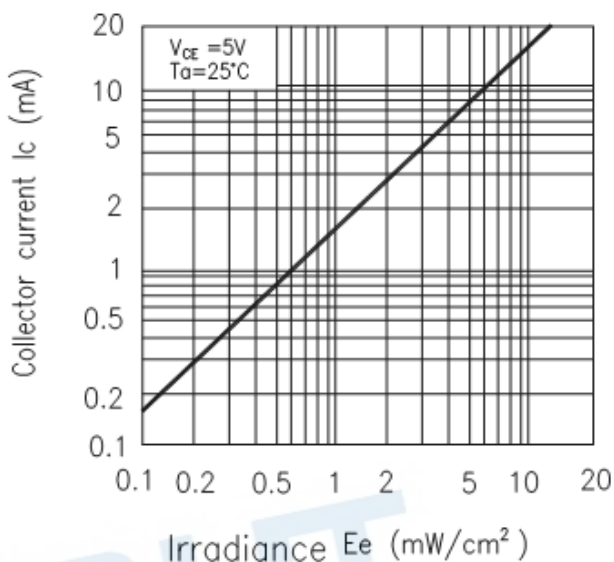
Typical Electro/Optical/Characteristics Curves for PT



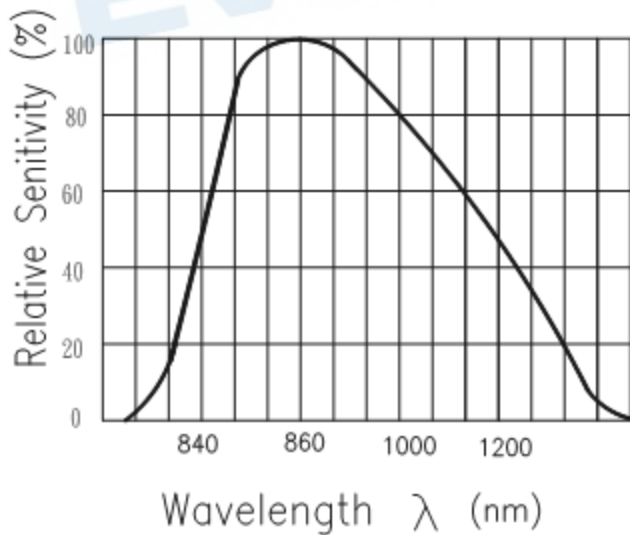
Relative Collector Current vs. Ambient Temperature



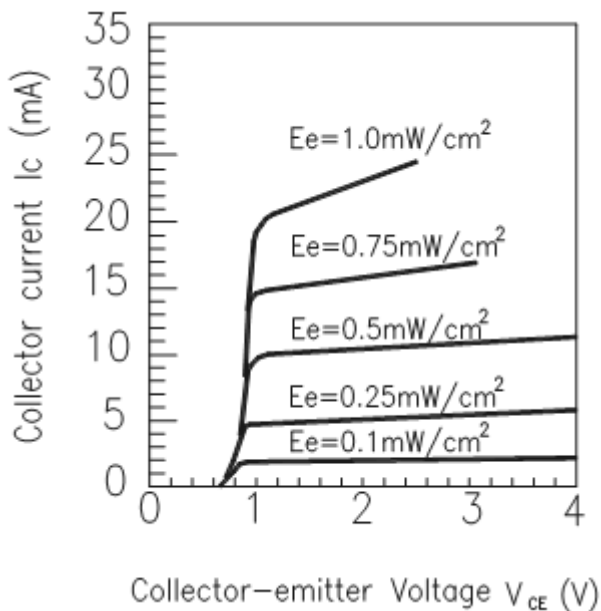
Collector Current vs. Irradiance



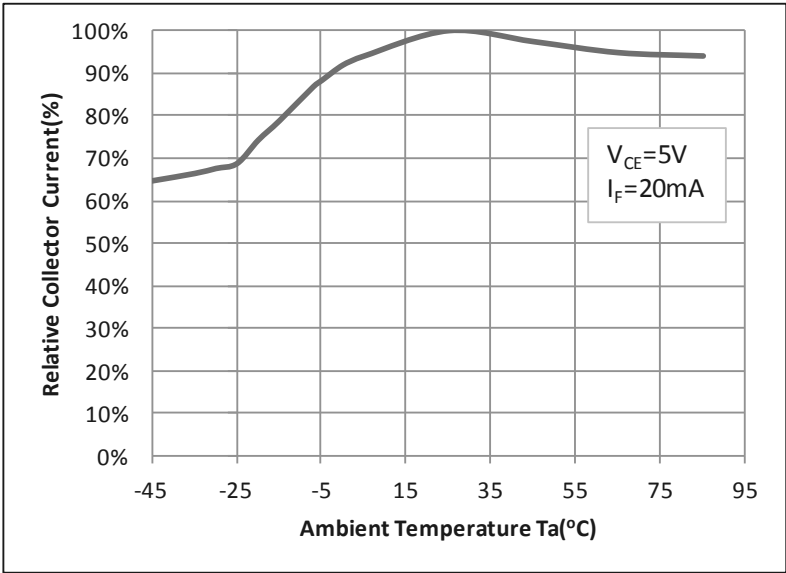
Spectral Sensitivity



Collector Current vs. Collector-emitter Voltage

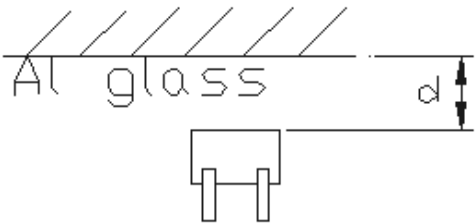
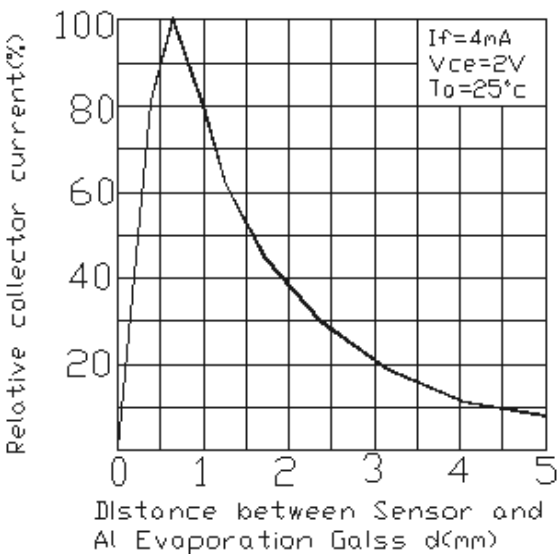


Ambient Temperature vs. Collector Current

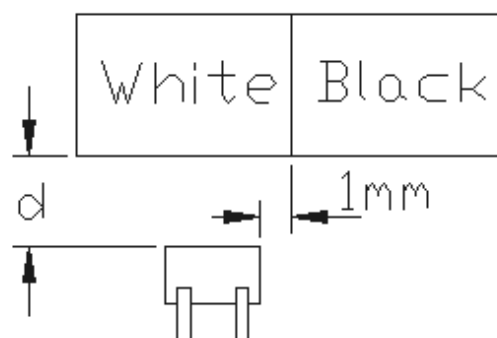
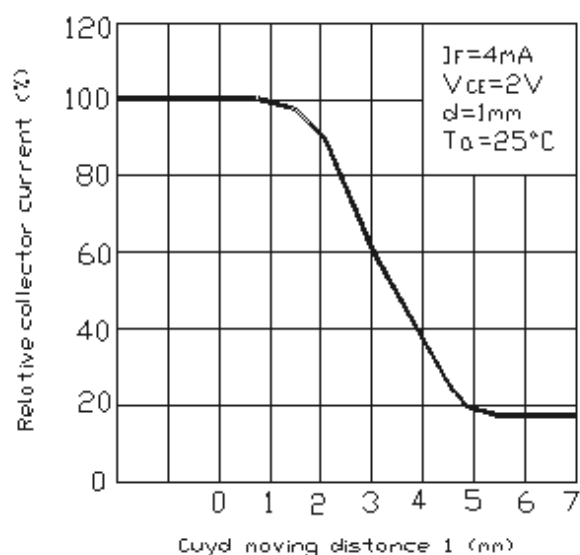


Typical Electrical/Optical/Characteristics Curves For ITR

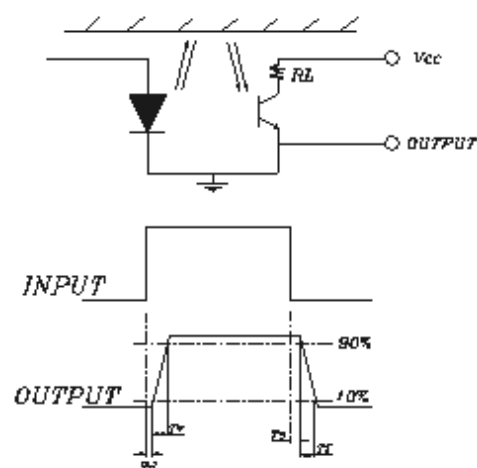
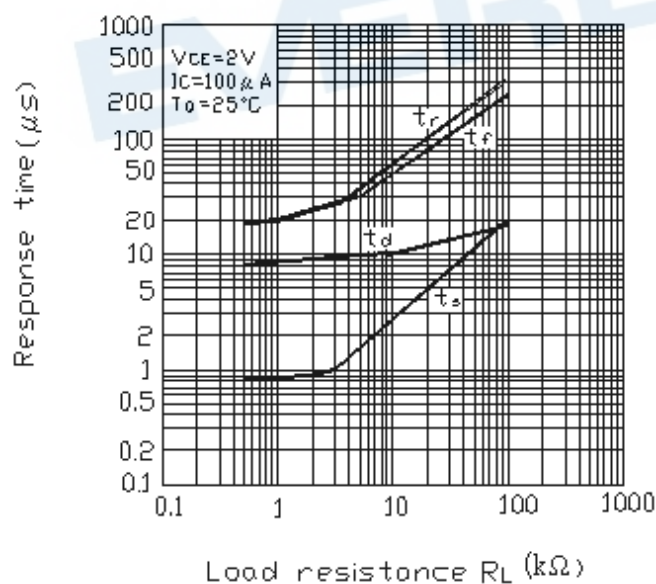
Relative Collector Current vs. Distance between Sensor and AL Evaporation Galss.



Relative Collector Current vs. Card Moving Distance



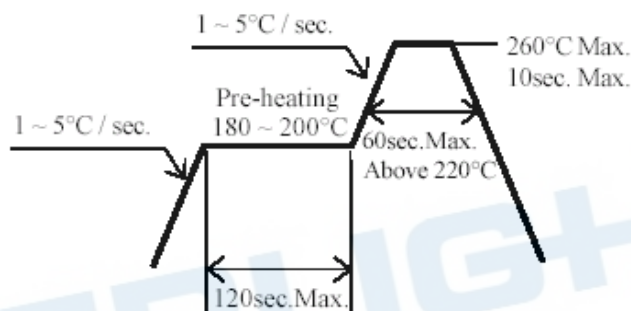
Response Time vs. Load Resistance



Recommended Method of Storage

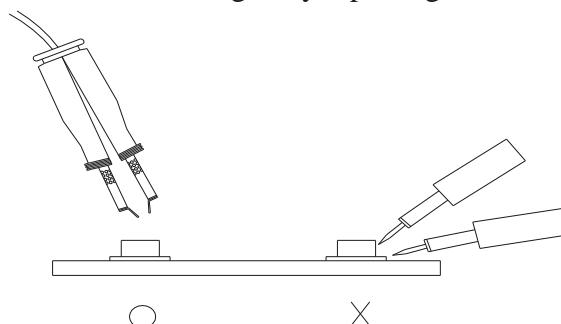
The following are general recommendations for moisture sensitive level (MSL) 4 storage and use:

- Shelf life in sealed bag: 12 months at $< 40^{\circ}\text{C}$ and $< 90\%$ relative humidity (RH)
- After bag is opened, devices that will be subjected to reflow solder or other high temperature process must
 - a) Mounted within 72 hours of factory conditions $< 30^{\circ}\text{C}/60\%\text{RH}$, or
 - b) Stored at $< 20\%$ RH
- Devices require bake, before mounting, if:
Humidity Indicator Card is $> 20\%$ when read at $23 \pm 5^{\circ}\text{C}$
- If baking is required, devices may be baked:
 - a) 192 hours at 40°C , and $< 5\%$ RH (dry air/nitrogen) or
 - b) 96 hours at 60°C , and $< 5\%$ RH for all device containers
 - c) 24 hours at 125°C
- Soldering Condition
 - a) Pb-free solder temperature profile

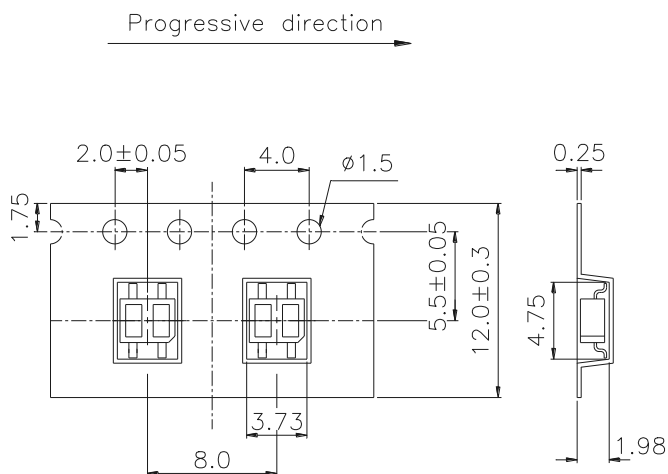


- b) Reflow soldering should not be done more than two times.
 - c) When soldering, do not put stress on the LEDs during heating.
 - d) After soldering, do not warp the circuit board.
- Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.

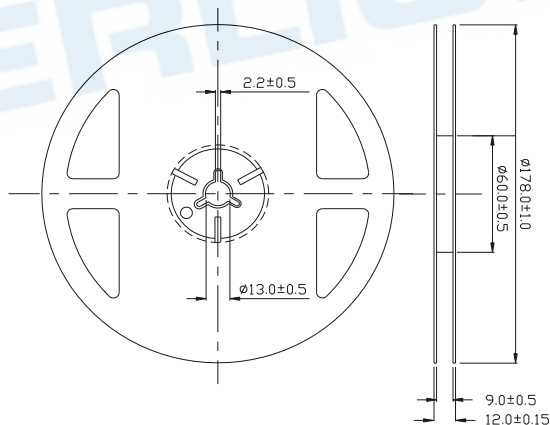


Taping Dimension



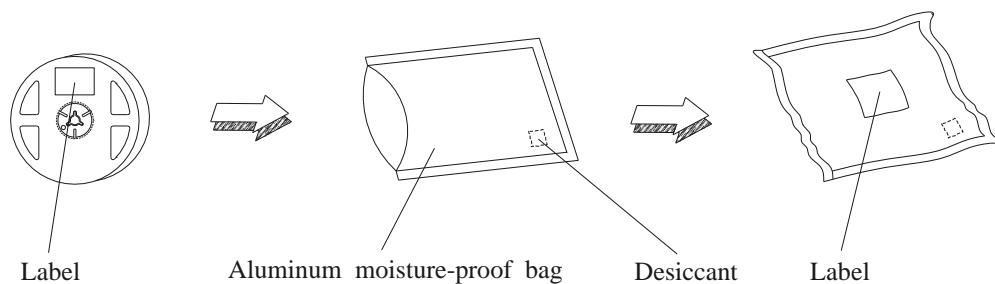
General Tolerance ± 0.1
UNIT:mm

Reel Dimensions



Note: The tolerances unless mentioned is ± 0.1 mm ,Unit = mm

Moisture Resistant Packaging



Packing Quantity Specification

1. 1000 Pcs/ 1Reel
2. 15 Reel /1 Box
3. 2 Box/ 1 Carton

Label Form Specification

The diagram shows a label form with the following fields and their corresponding barcode types:

- RoHS** (checkbox)
- EVERLIGHT** (logo)
- CPN: XXXXXXXXXXXX** (1D barcode)
- P/N:** (1D barcode)
- LOT NO:** (1D barcode)
- QTY:** (1D barcode)
- HUE:** (1D barcode)
- CAT:** (1D barcode)
- REF:** (1D barcode)
- REFERENCE:** (1D barcode)
- QR code** (2D barcode)

- 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

DISCLAIMER

1. EVERLIGHT reserves the right(s) on the adjustment of product material mix for the specification.
2. The product meets EVERLIGHT published specification for a period of twelve (12) months from date of shipment.
3. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
4. 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 the use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
5. These specification sheets include materials protected under copyright of EVERLIGHT. Reproduction in any form is prohibited without obtaining EVERLIGHT's prior consent.
6. This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death. Please contact authorized Everlight sales agent for special application request.