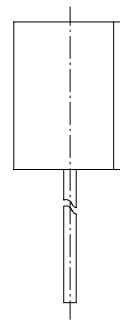
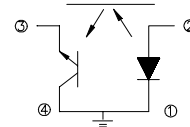
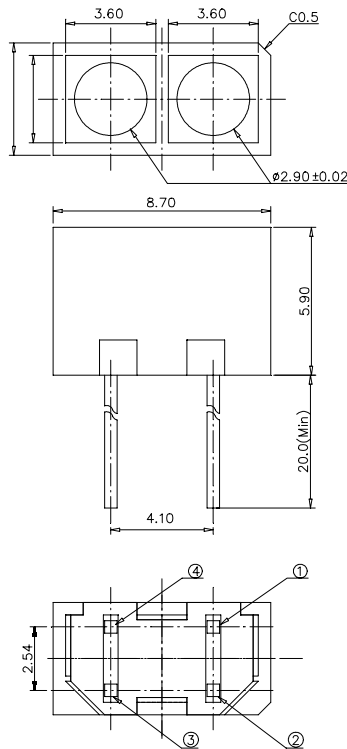




Interrupter

MODEL NO : ITR9909

■ Package Dimension :



①: Cathode
②: Anode
③: Emitter
④: Collector

■ Notes :

1. All dimensions are in millimeter.
2. General tolerance: ± 0.2 mm
3. Lead spacing is measured where the lead emerge from the package.
4. Above specification may be changed without notice. EVERCOLORS will reserve authority on material change for above specification.
5. These specification sheets include materials protected under copyright of EVERCOLORS corporation . Please don't reproduce or cause anyone to reproduce them without EVERCOLORS's consent.
6. When using this product , please observe the absolute maximum ratings and the instructions for use outlined in these specification sheets. EVERCOLORS 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.



Interrupter

MODEL NO : ITR9909

■ Absolute Maximum Ratings at T_A = 25°C

Parameter		Symbol	Rating	Unit
Input	Power Dissipation	P _D	160	mW
	Reverse Voltage	V _R	5	V
	Forward Current	I _F	60	mA
	Peak Forward Current(*1)	I _{FP}	1	A
Output	Collect Power Dissipation	P _C	100	mW
	Collect Current	I _C	20	mA
	Collector-Emitter Voltage	V _{CE}	30	V
	Emitter-Collector Voltage	V _{EC}	5	V
Operating Temperature		T _{opr}	-25~+85	°C
Storage Temperature		T _{stg}	-40~+85	°C
Soldering Temperature(*2)		T _{sol}	260	°C

(*1) t_w=10 μsecs, T=10 msecs

(*2) t=5secs

■ Electronic Optical Characteristics at T_A = 25°C:

Parameter		Symbol	Min.	Typ.	Max.	Unit	Condition
Input	Forward Voltage	V _{F1}	-	1.2	1.5	V	I _F =20mA
		V _{F2}	-	1.4	1.85		I _F =100mA, t _p =100 μs, t _p /T=0.01
		V _{F3}	-	2.6	4.0		I _F =1A, t _p =100 μs, t _p /T=0.01
	Reverse Current	I _R	-	-	10	μA	V _R =5V
	Peak Wavelength	λ _P	-	940	-	nm	
	View Angle	2θ 1/2	-	35	-	Deg	I _F =20mA
Output	Dark Current	I _{CEO}	-	-	100	nA	V _{CE} =20V, E _e =0mW/cm ²
	C-E Saturation Voltage	V _{CE(sat)}	-	-	0.4	V	I _C =2mA, I _B =0.1mA
Collect Current		I _{C(ON)}	0.2	-	-	mA	V _{CE} =5V, I _F =20mA
Leakage Current		I _{CEO(D)}	-	-	1	μA	
Response Time	Rise Time	t _R	-	15	-	μsec	V _{CE} =5V, I _C =1mA, R _L =1KΩ
	Fall Time	t _F	-	15	-	μsec	



Interrupter

MODEL NO : ITR9909

■ Typical Electrical/Optical/Characteristics Curves For IR

Fig. 1 Forward Current vs. Ambient Temperature

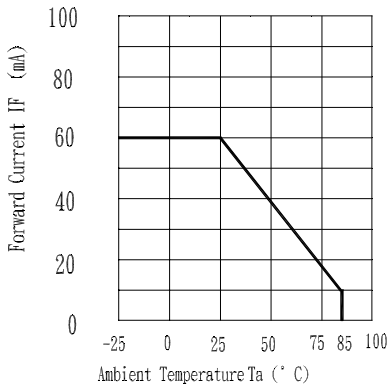


Fig. 2 Spectral Distribution

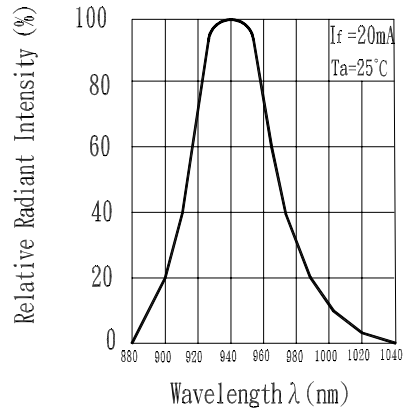


Fig. 3 Peak Emission Wavelength vs. Ambient Temperature

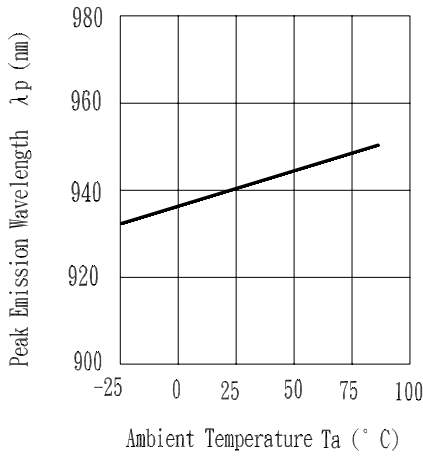


Fig. 4 Forward Current vs. Forward Voltage

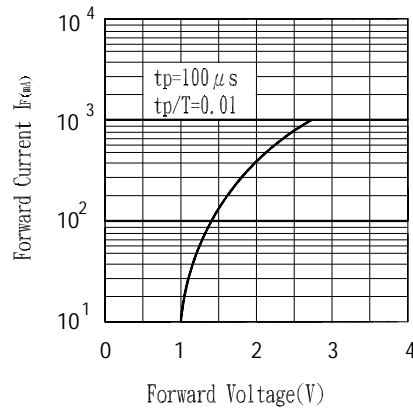


Fig. 5 Relative Intensity vs. Forward Current

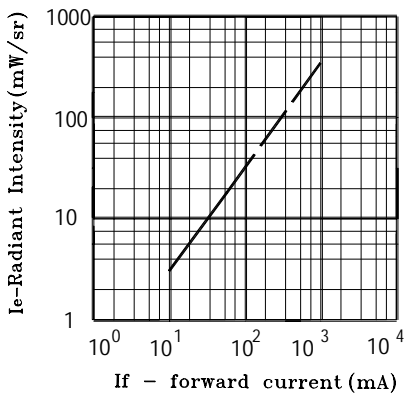
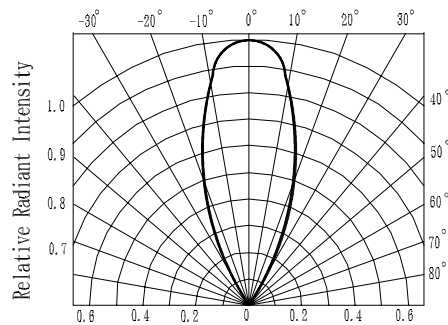


Fig. 6 Relative Radiant Intensity vs. Angular Displacement

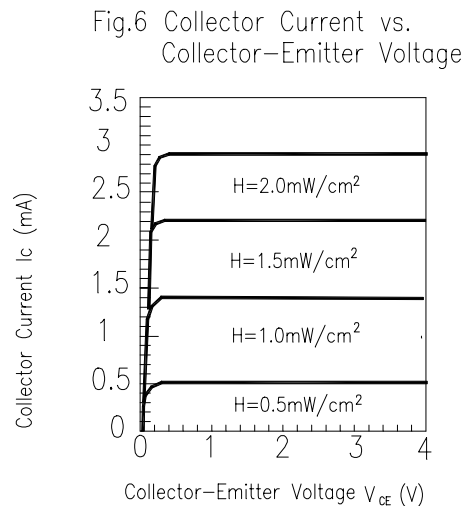
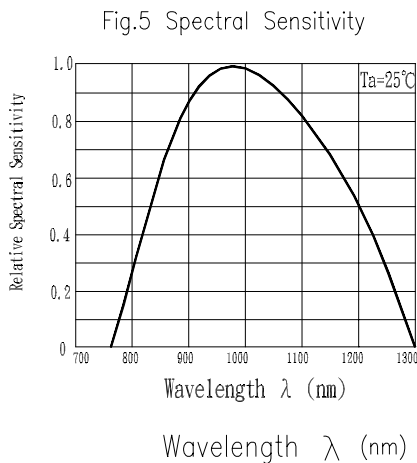
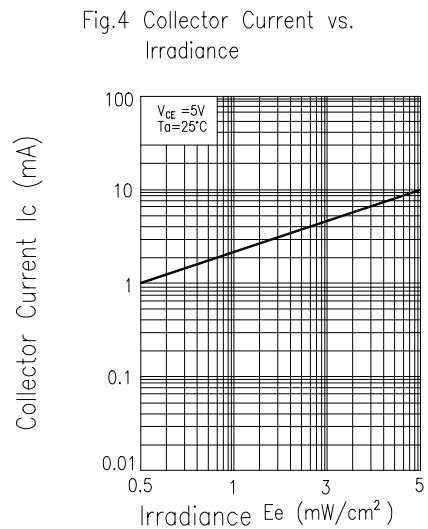
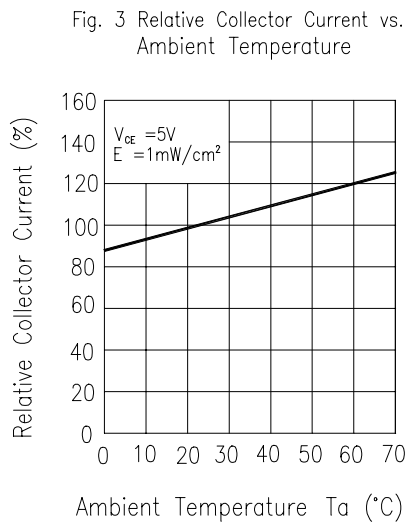
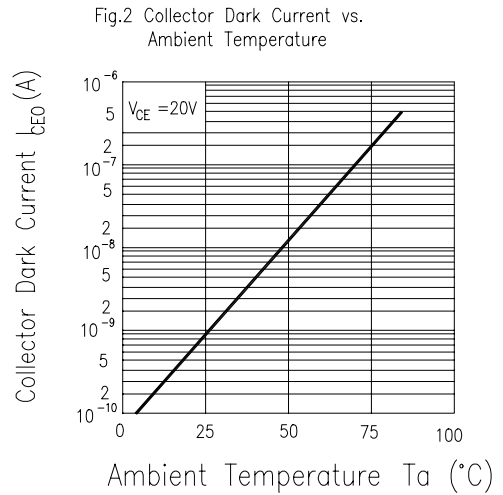
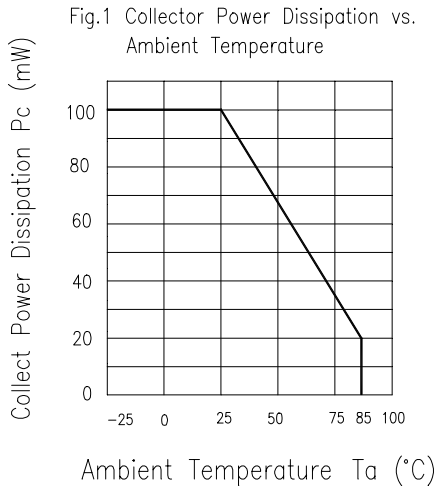




Interrupter

MODEL NO : ITR9909

■ Typical Electrical/Optical/Characteristics Curves For PT





Interrupter

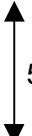
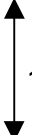
MODEL NO : ITR9909

■ Reliability Test Item And Condition

The reliability of products shall be satisfied with items listed below.

Confidence level:90%

LTPD:10%

NO.	Item	Test Conditions	Test Hours/ Cycle	Sample Size	Failure Judgement Criteria	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 sec	22 PCs	$I_{c(on)} \leq L \times 0.8$ L :Lower specification limit	0/1
2	Temperature Cycle	H : +85°C 30 min  L : -55°C 30 min	50 cycle	22 PCs		0/1
3	Thermal Shock	H : +100°C 5 min  L : -10°C 30 min	50 cycle	22 PCs		0/1
4	High Temperature Storage	TEMP. : +100°C	1000 hrs	22 PCs		0/1
5	Low Temperature Storage	TEMP. : -55°C	1000 hrs	22 PCs		0/1
6	DC Operating Life	$V_{CE}=5V$	1000 hrs	22 PCs		0/1
7	High Temperature / High Humidity	85°C / 85% R.H.	1000 hrs	22 PCs		0/1

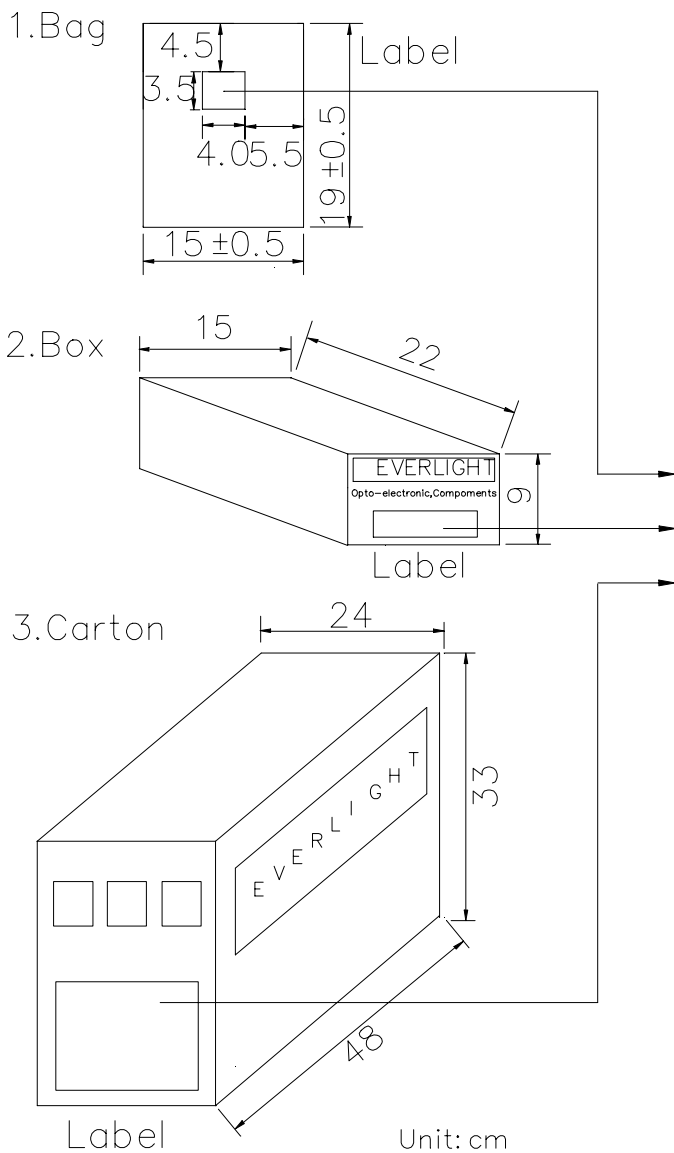




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 ECN : _____ PAGE : 7/7

Interrupter

MODEL NO : ITR9909

■ Packing Specifications



CPN: _____
 P/N: _____

 ITR9909
 QTY: _____ CAT: _____
 HUE: _____
 LOT NO: _____ REF: _____

CPN : Customer's Production Number
 P/N : Production Number
 QTY : Packing Quantity
 CAT :
 HUE :
 REF :
 LOT NO : Lot Number

■ Packing Quantity Specification

- 1.200Pcs/1Bag
- 2.6Bags/1Box
- 3.10Boxes/1Carton