

TOSHIBA PHOTO TRANSISTOR SILICON NPN EPITAXIAL PLANAR

TPS608A

TRANSISTOR FOR PHOTO INTERRUPTER

Unit in mm

PHOTOELECTRIC COUNTER

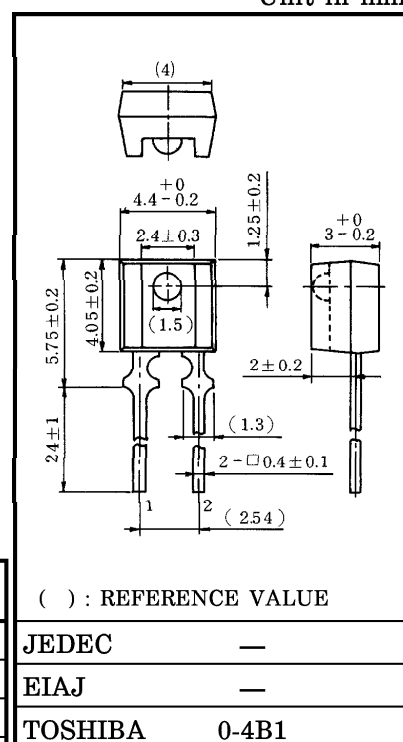
POSITION AND ROTATIONAL SPEED SENSOR

AUTOMATIC CONTROL UNIT

- Fast response speed
- The same external shape as the infrared LED TLN107A, and is best suited for combination with TLN107A as a photo interrupter.

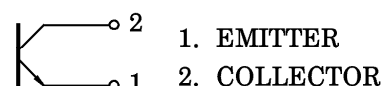
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	V _{CEO}	30	V
Emitter-Collector Voltage	V _{ECO}	5	V
Collector Current	I _C	50	mA
Collector Power Dissipation	P _C	75	mW
Collector Power Dissipation Derating (Ta > 25°C)	ΔP _C / °C	-1	mW / °C
Operating Temperature Range	T _{opr}	-25~85	°C
Storage Temperature Range	T _{stg}	-40~100	°C



Weight : 0.16g (TYP.)

PIN CONNECTION



OPTO-ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Dark Current	I _D (I _{CEO})	V _{CE} = 24V, E = 0	—	0.005	0.1	μA
Light Current (Note 1)	I _L	V _{CE} = 3V, E = 0.1mW / cm ²	40	100	—	μA
Collector-Emitter Saturation Voltage	V _{CE} (sat)	I _C = 15μA, E = 0.1mW / cm ²	—	0.15	0.4	V
Switching Time	Rise Time	V _{CC} = 5V, I _C = 2mA R _L = 100Ω	—	6	—	μs
	Fall Time		—	6	—	
Peak Sensitivity Wavelength	λ _P	—	—	820	—	nm
Half Value Angle	θ _½	—	—	±15	—	°

(Note 1) I_L Classification A : 40~120μA, B : 80~240μA

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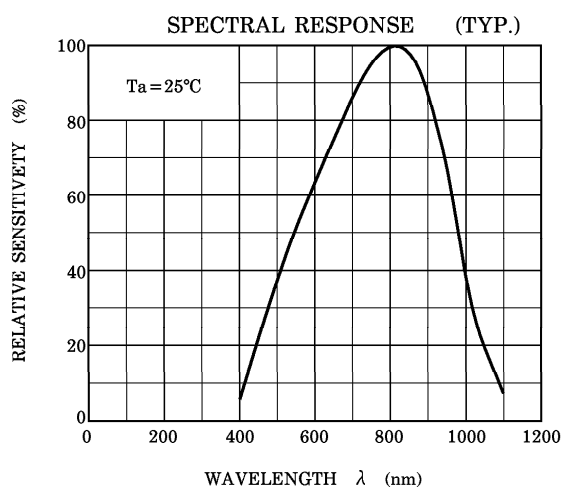
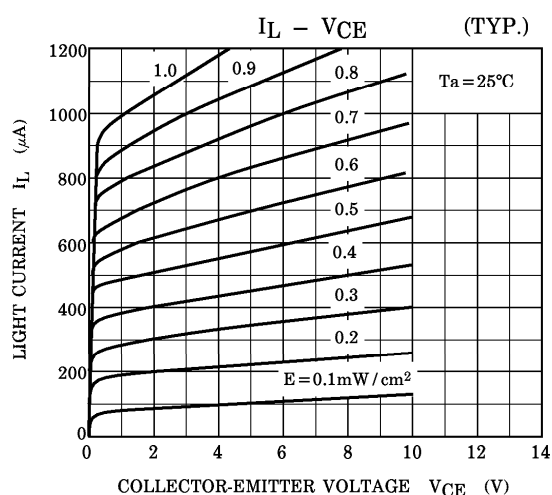
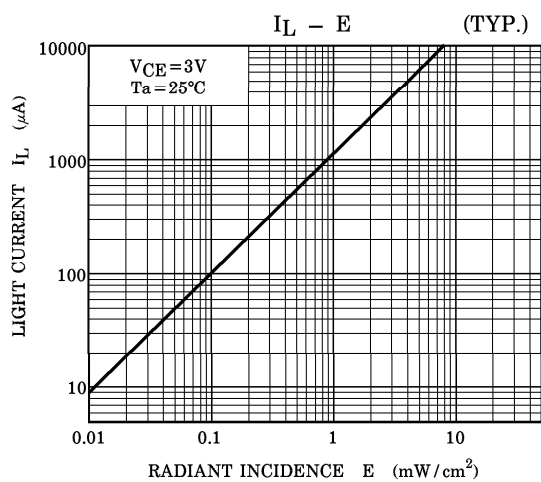
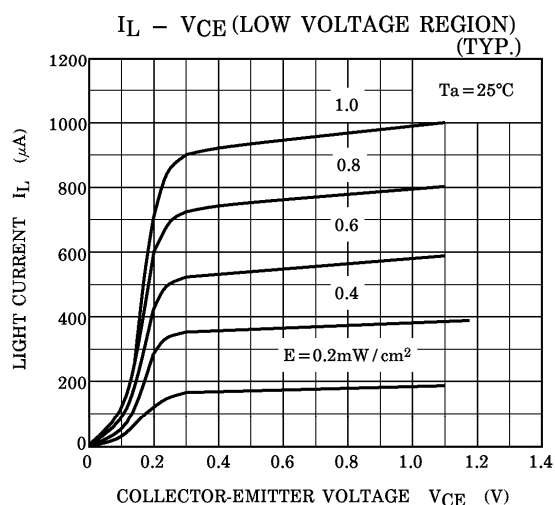
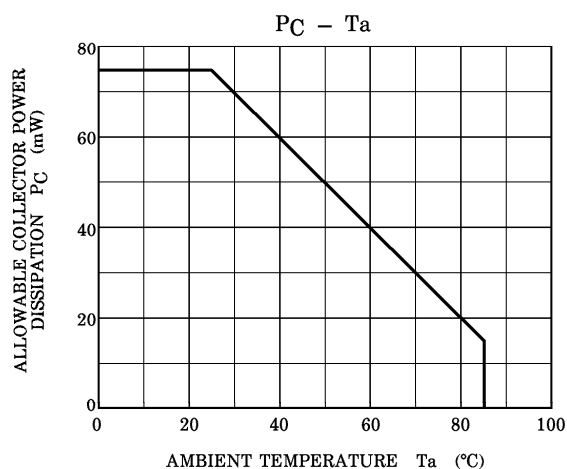
PRECAUTION

Please be careful of the followings.

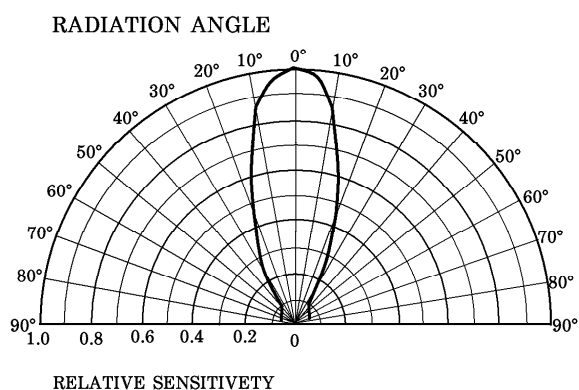
1. Soldering temperature : 260°C MAX. Soldering time : 5s MAX.
(Soldering portion of lead : above 2mm from the body of the device)
2. If the lead is formed, the lead should be formed at a distance of 2mm from the body of the device.
Soldering shall be performed after lead forming.

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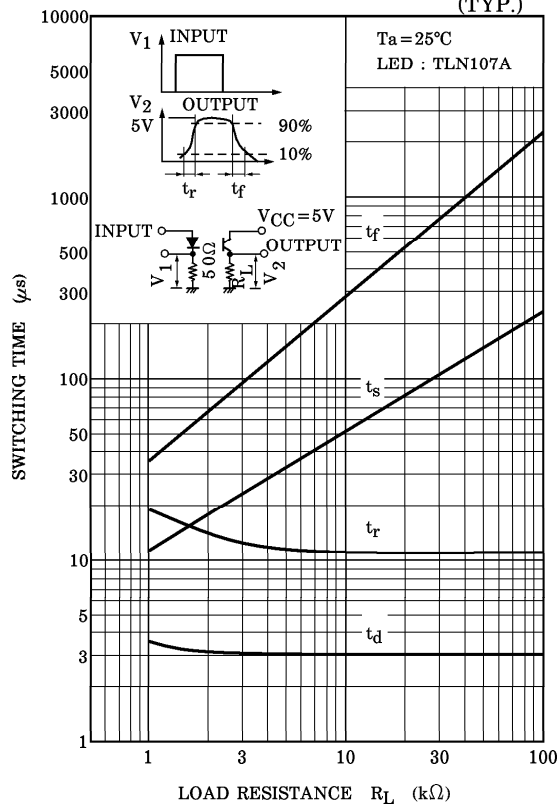
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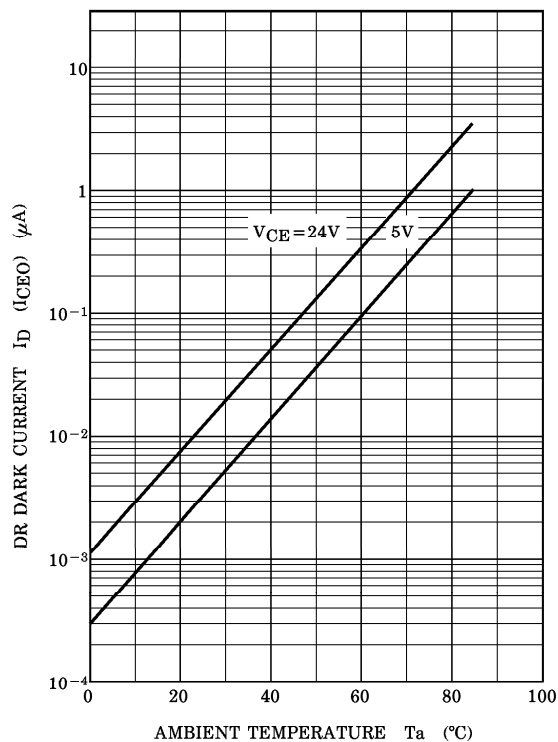
DIRECTIONAL SENSITIVITY CHARACTERISTIC (Ta = 25°C) (TYP.)



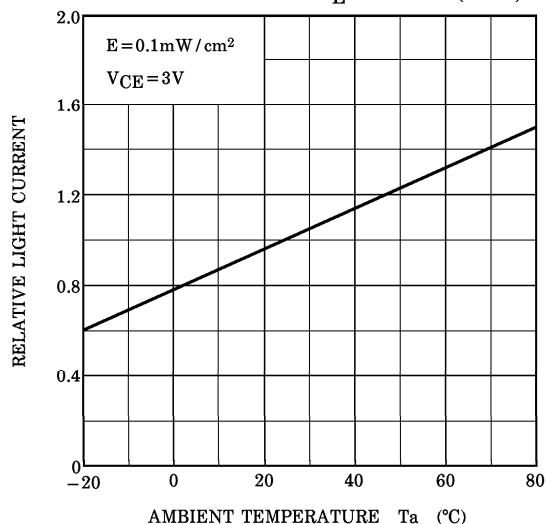
SWITCHING CHARACTERISTICS (TYP.)



$I_D - T_a$ (TYP.)



RELATIVE $I_L - T_a$ (TYP.)



COUPLING CHARACTERISTICS WITH TLN107A

