

TOSHIBA PHOTO TRANSISTOR SILICON NPN EPITAXIAL PLANAR

TPS618

PHOTO TRANSISTOR FOR PHOTO INTERRUPTER

Unit in mm

PHOTOELECTRIC COUNTER

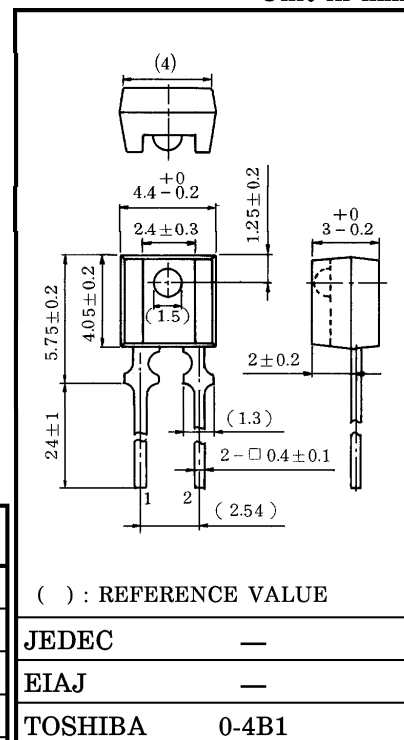
POSITION AND ROTATIONAL SPEED SENSOR

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.
- Visible light cut type (black package)

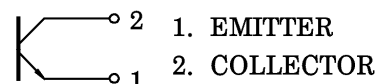
MAXIMUM RATINGS (Ta = 25°C)

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 (Note 2)	27	70	—	μA
Collector-Emitter Saturation Voltage	V _{CE} (sat)	I _C = 10μA, E = 0.1mW / cm ² (Note 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	—	—	870	—	nm
Half Value Angle	θ _{1/2}	—	—	±15	—	°

Note 1. I_L Classification A : 27~80μA, B : 55~165μA

2. Color temperature = 2870°K, Standard Tungsten Lamp

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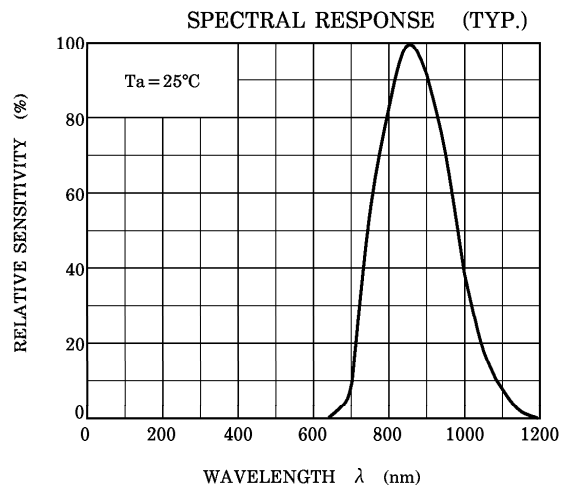
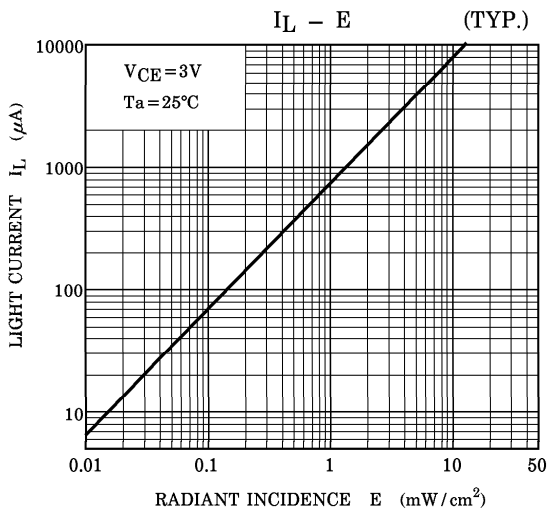
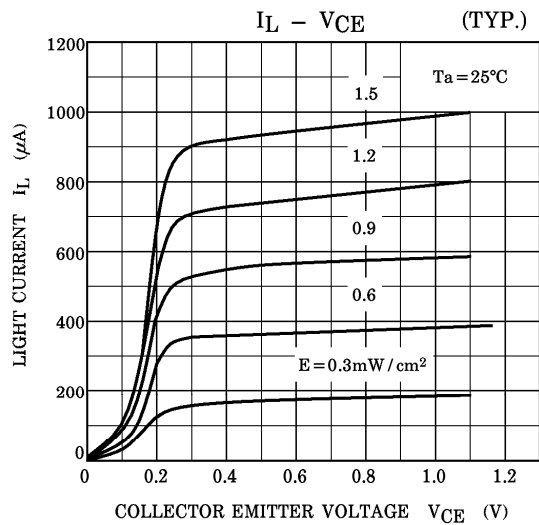
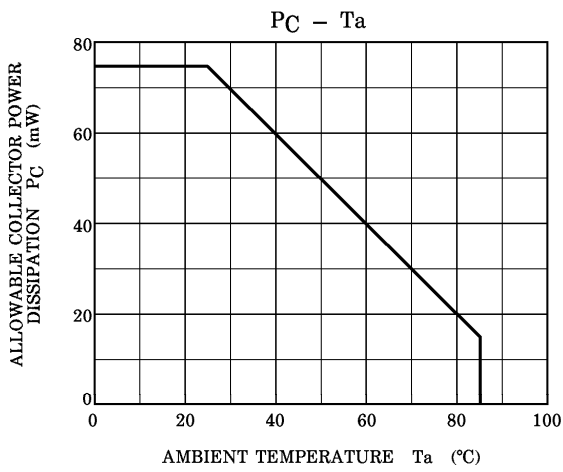
PRECAUTION

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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DIRECTIONAL SENSITIVITY CHARACTERISTIC (TYP.)
($T_a = 25^\circ C$)

