

TOSHIBA INFRARED LED GaAs INFRARED EMITTER

TLN119

PRINTER, FACSIMILE

FLOPPY DISK DRIVE

HOME ELECTRIC EQUIPMENT

OPTO-ELECTRONIC SWITCH

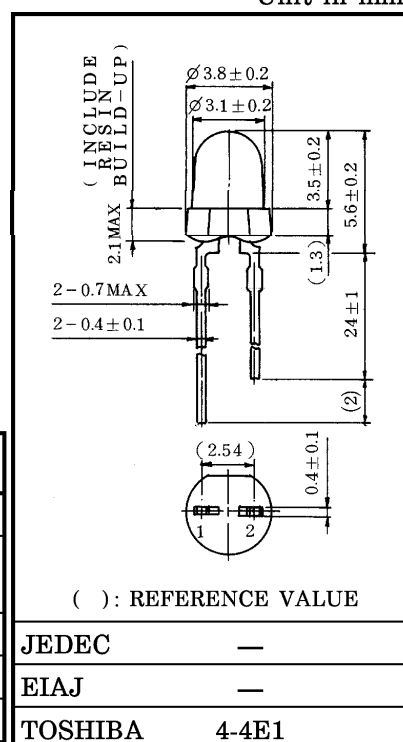
- $\phi 3.1\text{mm}$ plastic package
- Radiant intensity : $I_E = 5\text{mW/sr}$ (TYP.)
- Half value angle : $\theta_{\frac{1}{2}} = \pm 30^\circ$ (TYP.)

MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Forward Current	I_F	60	mA
Forward Current Derating ($T_a > 25^\circ\text{C}$)	$\Delta I_F / ^\circ\text{C}$	-0.8	mA / $^\circ\text{C}$
Pulse Forward Current (Note 1)	I_{FP}	600	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{opr}	$-25 \sim 85$	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-30 \sim 100$	$^\circ\text{C}$
Soldering Temperature (3s)	T_{sol} (Note 2)	260	$^\circ\text{C}$

- Note 1. Pulse Width $\leq 100\mu\text{s}$, Repetitive Frequency = 100Hz
 2. Soldering portion of lead : above 2mm from the body of the device.

Unit in mm



Weight : 0.12g (TYP.)

PIN CONNECTION

1. ANODE
2. CATHODE

OPTO-ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	V_F	$I_F = 10\text{mA}$	1.00	1.15	1.30	V
Reverse Current	I_R	$V_R = 5\text{V}$	—	—	10	μA
Radiant Intensity (Note 3)	I_E	$I_F = 20\text{mA}$	2.5	5.0	10.0	mW / sr
Radiant Power	P_O	$I_F = 20\text{mA}$	—	4.5	—	mW
Peak Emission Wavelength	λ_P	$I_F = 20\text{mA}$	—	945	—	nm
Spectral Line Half Width	$\Delta\lambda$	$I_F = 20\text{mA}$	—	50	—	nm
Half Value Angle	$\theta_{\frac{1}{2}}$	$I_F = 20\text{mA}$	—	± 30	—	$^\circ$

Note 3. I_E classification A : 2.5~6.0mW / sr, B : 4.2~10mW / sr

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PRECAUTION

Please be careful of the followings.

1. When the lead is formed, the lead shall be formed at a distance of 2mm from the body without leaving forming stress to the body of the device.
Soldering shall be performed after lead forming.

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- Gallium arsenide (GaAs) is a substance used in the products described in this document. GaAs dust and fumes are toxic. Do not break, cut or pulverize the product, or use chemicals to dissolve them. When disposing of the products, follow the appropriate regulations. Do not dispose of the products with other industrial waste or with domestic garbage.
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