

PNZ154NC

Silicon planar type

For optical control systems

■ Features

- Fast response
- Wide spectral sensitivity characteristics
- Adoption of visible light cutoff resin

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-emitter voltage (Base open)	V_{CEO}	20	V
Emitter-collector voltage (Base open)	V_{ECO}	5	V
Collector current	I_{C}	20	mA
Collector power dissipation	P_{C}	100	mW
Operating ambient temperature	T_{opr}	-25 to +85	$^\circ\text{C}$
Storage temperature	T_{stg}	-30 to +100	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Photocurrent *1	I_{L}	$V_{\text{CE}} = 10 \text{ V}$, $L = 500 \text{ lx}$	0.7	2.0		mA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{\text{CE}} = 10 \text{ V}$		0.01	0.20	μA
Collector-emitter saturation voltage *1	$V_{\text{CE(sat)}}$	$I_{\text{L}} = 1 \text{ mA}$, $L = 1\,000 \text{ lx}$		0.2	0.5	V
Peak sensitivity wavelength	λ_{PD}	$V_{\text{CE}} = 10 \text{ V}$		850		nm
Half-power angle	θ	The angle from which photocurrent becomes 50%		27		$^\circ$
Rise time *2	t_{r}	$V_{\text{CC}} = 10 \text{ V}$, $I_{\text{L}} = 5 \text{ mA}$, $R_{\text{L}} = 100 \Omega$		4	10	μs
Fall time *2	t_{f}			4	10	μs

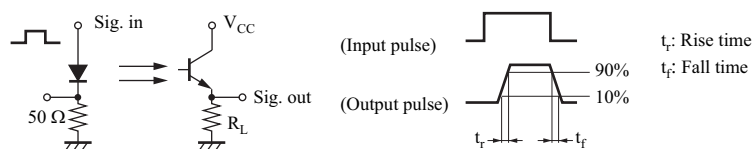
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. Spectral sensitivity characteristics: Sensitivity for wave length over 400 nm maximum sensitivity ratio is 100%.

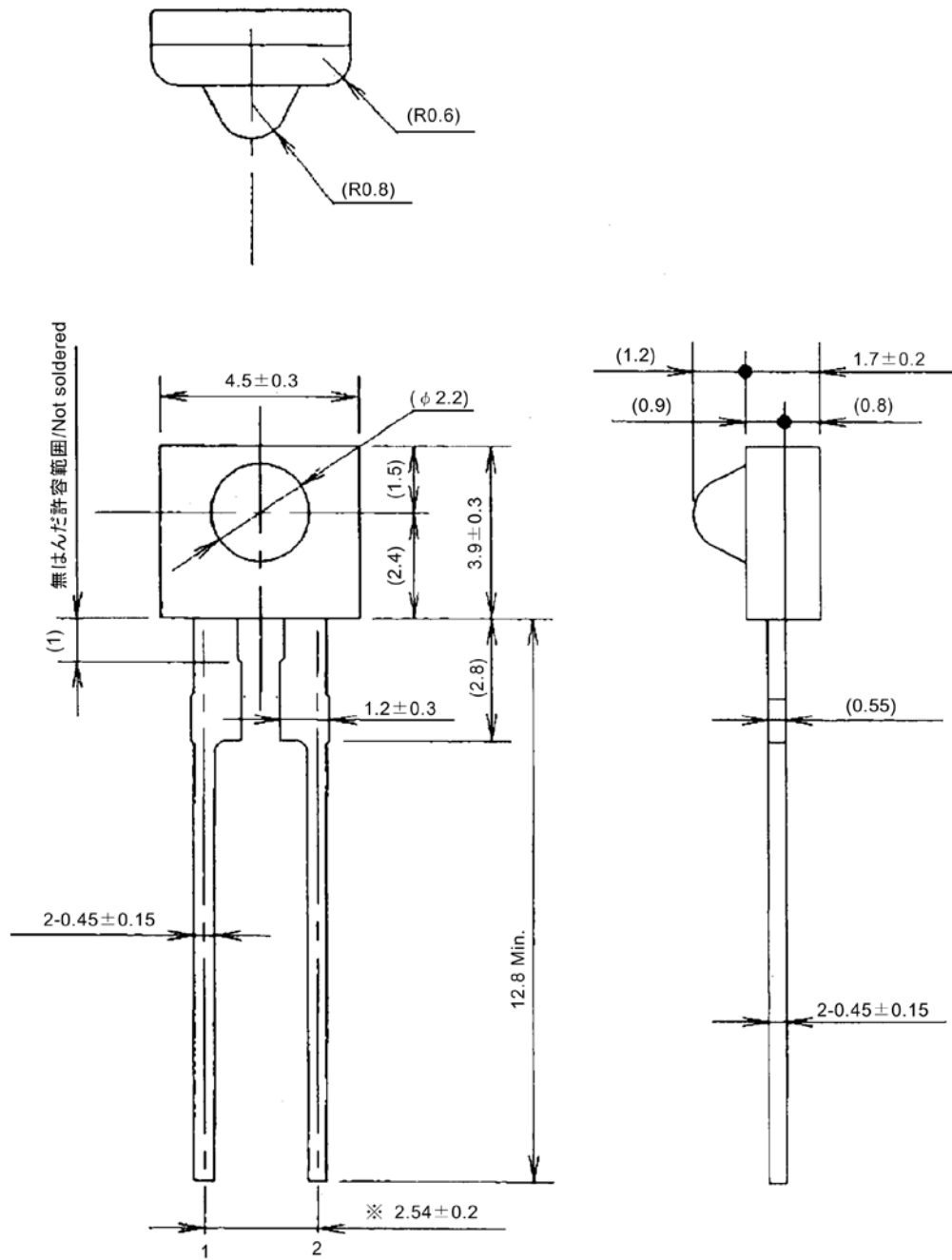
3. This device is designed by disregarding radiation.

4 *1: Source: Tungsten (color temperature 2 856 K)

*2: Switching time measurement circuit



■ Package (Unit: mm)



(注 1)※リード根元寸法とする。

(Note1)※Indicating dimensions for the bottom of the lead.

• Pin name

1: Emitter

2: Collector

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