

Lead (Pb) Free Product RoHS compliant

# PT010-05 mold type Phototransistor

PT010-05 is an epoxy mold type phototransistor featuring high photo current.

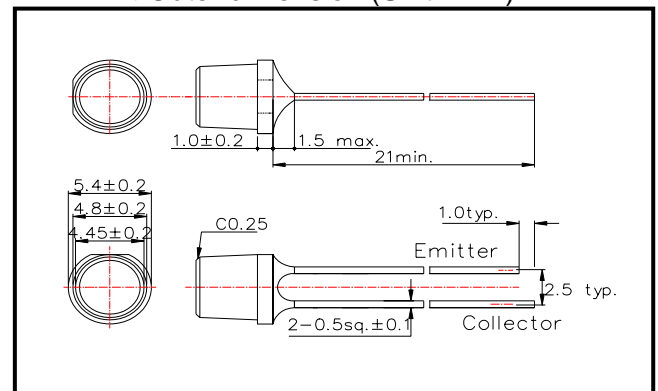
This phototransistor consists of a chip with 0.8\*0.8mm active area mounted on a lead frame with a  $\Phi 5$  clear epoxy lens.

This device exhibits a half angle of sensitivity  $\pm 40^\circ$  and response time of 8us.

### ◆ Specifications

- |                    |                            |
|--------------------|----------------------------|
| 1) Product Name    | Mold type Photo Transistor |
| 2) Type No.        | PT010-05                   |
| 3) Chip            |                            |
| (1) Chip Size      | 1mm*1mm                    |
| (2) Active Area    | 0.8mm*0.8mm                |
| 4) Package         |                            |
| (1) Type           | $\Phi 5$ Epoxy Mold        |
| (2) Resin Material | Clear Epoxy Resin          |
| (3) Lead Frame     | Soldered (Pb-free)         |

### ◆ Outer dimension (Unit : mm)



### ◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Collector-Emitter Breakdown Voltage	V <sub>CEO</sub>	10	V
Emitter-Collector Breakdown Voltage	V <sub>ECO</sub>	5	V
Collector Current	I <sub>C</sub>	10	mA
Collector Dissipation	P <sub>C</sub>	50	mW
Operating Temperature	T <sub>OPR</sub>	-25 ~ +100	°C
Storage Temperature	T <sub>STG</sub>	-30 ~ +125	°C
Soldering Temperature	T <sub>SOL</sub>	240	°C

‡Soldering condition: Soldering condition must be completed within 2 seconds at 240°C

### ◆ Electro-Optical Characteristics [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	unit
Photo Current	I <sub>L</sub>	V <sub>CE</sub> =5V, L=1000Lx	2	5		mA
Collector Dark Current	I <sub>D</sub>	V <sub>CE</sub> =5V			100	nA
Collector Emitter Satu. Voltage	V <sub>CE(S)</sub>	I <sub>C</sub> =2mA, L=1000Lx			0.3	V
Spectral Responsivity (Peak)	P			900		nm
Half Angle of Sensitivity				$\pm 40$		deg.
Rise/Fall Time(10%~90%)	t <sub>r</sub>	R <sub>L</sub> =1K $\Omega$ , V <sub>CE</sub> =5V		8		$\mu$ s
	t <sub>f</sub>	I <sub>C</sub> =1mA		8		$\mu$ s