

# KDR3T03AL

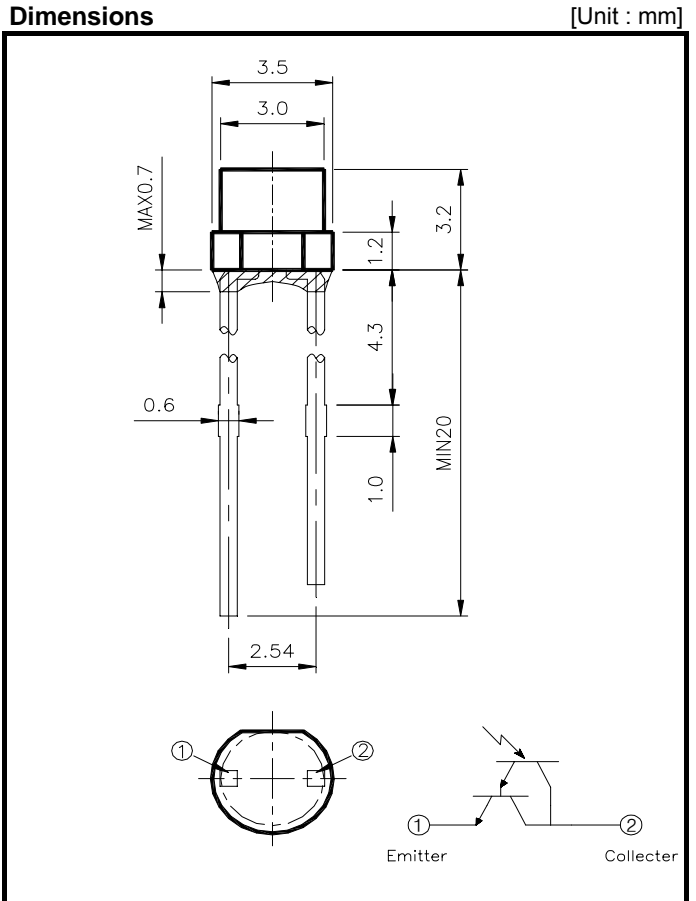
The KDR3T03AL is photodarlington daylight sensor, which peak sensitivity is designed at  $\lambda_p=560\text{nm}$ . It's compact and easy to mount.

**Features**

- Lineat output conforming to illuminance
- Top-view and Lead-pin package.
- Adapted to human eye responsivity.
- Compact package
- RoHs Compliance.

**Applications**

- Switching for home lighting equipments
- Control of brightness for LCD monitor, CRT monitor
- Replacement of cds cell



**Absolute Maximum Ratings**

[ $T_A = 25^{\circ}\text{C}$ ]

| Parameter                   | Symbol     | Rating  | Unit               |
|-----------------------------|------------|---------|--------------------|
| Collector-Emitter Voltage   | $V_{CEO}$  | 7       | V                  |
| Emitter-Collector Voltage   | $V_{ECO}$  | 4       | V                  |
| Collector Current           | $I_C$      | 20      | mA                 |
| Collector Power Dissipation | $P_C$      | 75      | mW                 |
| Operating Temperature       | $T_{opr.}$ | -20~+85 | $^{\circ}\text{C}$ |
| Storage Temperature         | $T_{stg.}$ | -30~+85 | $^{\circ}\text{C}$ |
| Soldering Temperature*1     | $T_{sol}$  | 260     | $^{\circ}\text{C}$ |

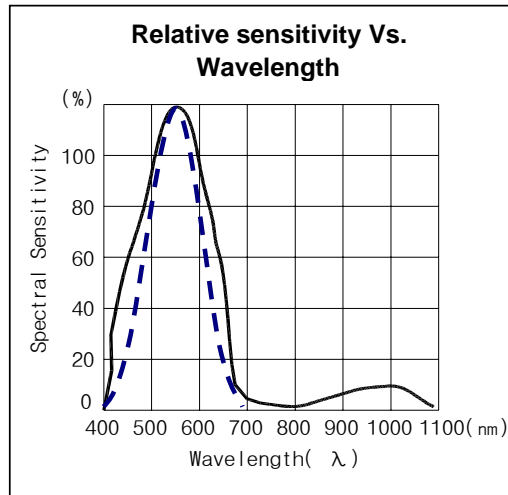
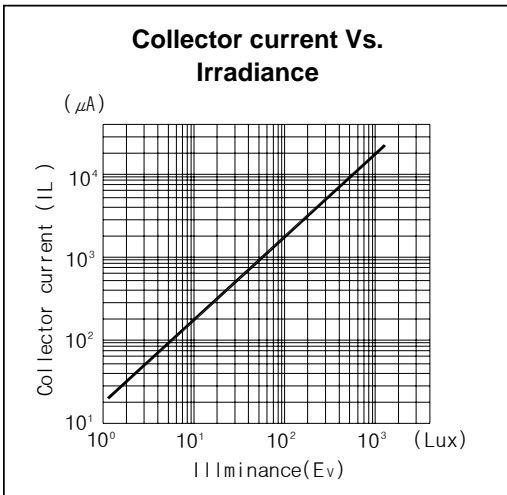
Notes : \*1. For MAX.5 seconds at the position of 2mm from the package

## KDR3T03AL

**ELECTRO- OPTICAL CHARACTERISTICS**

| Description                          |           | Symbol         | Condition                               | Min.     | Typ. | Max. | Unit    |
|--------------------------------------|-----------|----------------|---|----------|------|------|---------|
| Collector dark Current               |           | $I_{CEO}$      | $V_{CE}=10V, E_E=0$                     | -        | -    | 1000 | nA      |
| Photo Current                        |           | $I_{PCE}$      | $V_{CE}=5V, E_v=10lx$                   | 100      | -    | 500  | $\mu A$ |
| Spectral Sensitivity                 |           | $\lambda$      | -                                       | 400~700  |      |      | nm      |
| Peak wavelength                      |           | $\lambda_p$    | -                                       | -        | 560  | -    | nm      |
| Switching time                       | Rise time | tr             | $V_{CE}=5V, I_C=1mA,$<br>$R_L=1K\Omega$ | -        | 100  | -    | $\mu s$ |
|                                      | Fall time | tf             |   | -        | 90   | -    | $\mu s$ |
| Viewing Angle                        |           | $\Delta\theta$ | -                                       | $\pm 28$ | -    | -    | deg.    |
| Collector-Emitter Saturation Voltage |           | $V_{CE(SAT)}$  | $I_B=100\mu A, I_C=15mA$                | -        | -    | 1    | V       |

**DYNAMIC CHARACTERISTICS**



— KDR3T03AL  
 - - - - - Human Eye

