

## InGaAs Photodiodes

### KPDE150-H45

## Characteristics

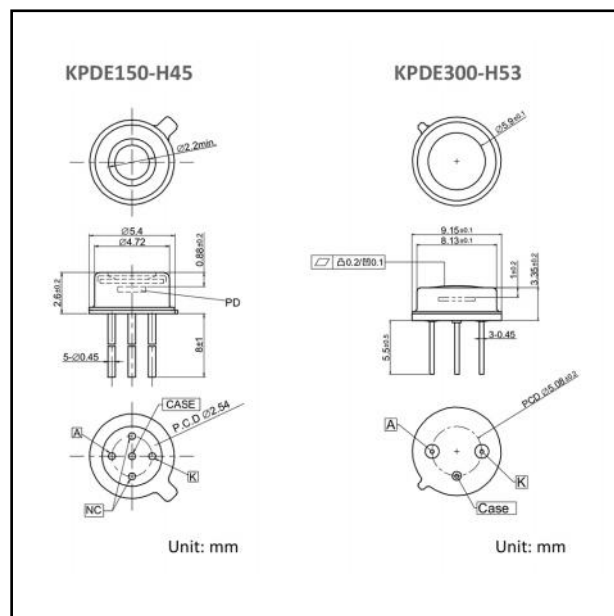
- Large sensitive area
- Low voltage operation
- Custom designed photodiode available

## Applications

- Laser power monitors
- Laser diode and LED aging equipment
- Near infrared sensing system
- Power meters

## Package

- TO-CAN



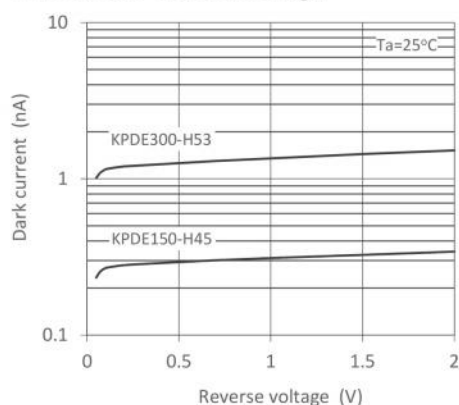
## Absolute Maximum Ratings

| Parameter             | Symbol    | Value      | Unit | Conditions             |
|-----------------------|-----------|------------|------|------------------------|
| Reverse voltage       | $V_R$     | 2          | V    | -                      |
| Reverse Current       | $I_R$     | 50         | mA   | -                      |
| Forward current       | $I_F$     | 50         | mA   | -                      |
| Operating temperature | $T_{opr}$ | -20 to +70 | °C   | Avoid dew condensation |
| Storage temperature   | $T_{stg}$ | -20 to +80 | °C   | Avoid dew condensation |

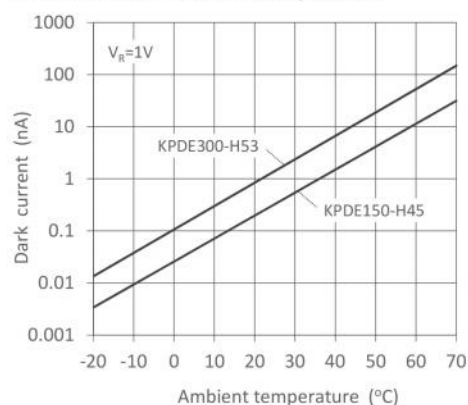
## Electrical and Optical characteristics (Ta=25°C unless otherwise noted)

| Parameter            | Symbol    | Min.       | Typ.       | Max. | Unit | Conditions                                         |
|----------------------|-----------|------------|------------|------|------|----------------------------------------------------|
| Active area          | S         | -          | 1500       | -    | μm   | -                                                  |
| Sensitive wavelength | $\lambda$ | 900        | -          | 1700 | nm   | -                                                  |
| Responsivity         | R         | 0.8<br>0.9 | 0.9<br>1.0 | -    | A/W  | $V_R=1V \lambda=1310nm$<br>$V_R=1V \lambda=1550nm$ |
| Dark current         | $I_D$     | -          | 1          | -    | nA   | $V_R=1V$                                           |
| Total capacitance    | $C_t$     | -          | 150        | -    | pF   | $V_R=1V f=1MHz$                                    |

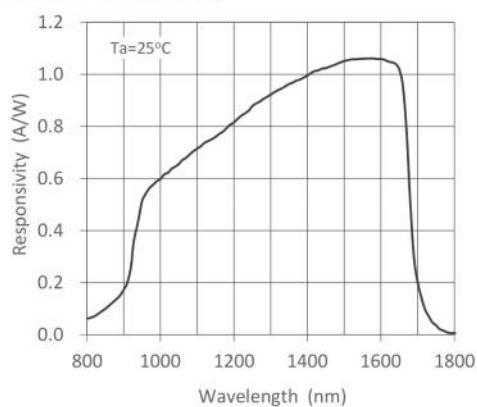
Dark Current - Reverse Voltage



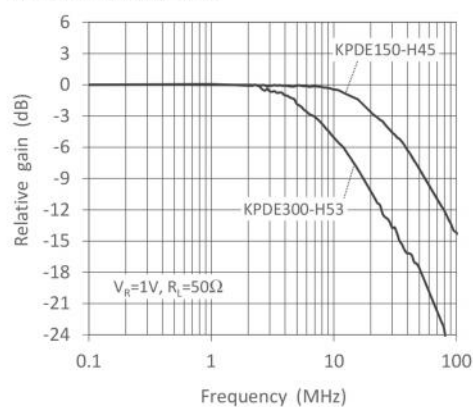
Dark Current - Ambient Temperature



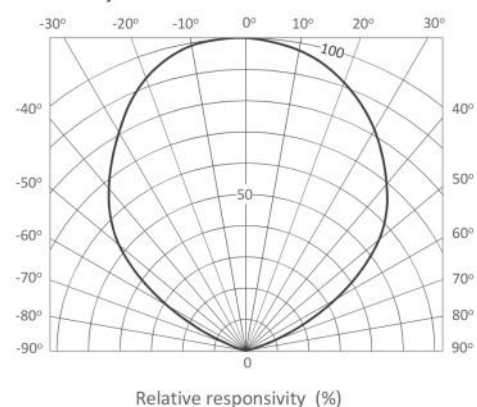
Spectral Responsivity



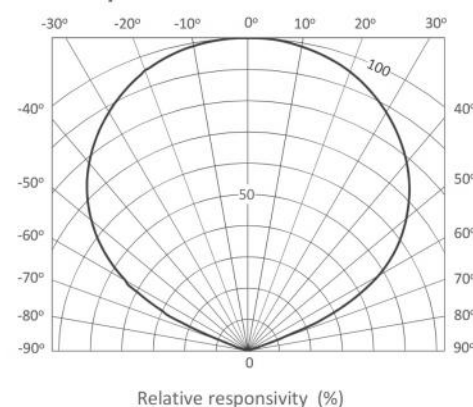
Frequency Response



KPDE150-H45 Directivity



KPDE300-H53 Directivity



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