

## GaAs PD-TIA Receivers

## KPGX4G-H33

#### Characteristics

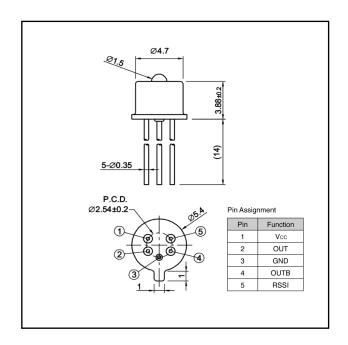
- Low noise and high speed transimpedance amplifier built-in for optical data links in the wavelength of 850nm
- High reliability
- 5 pin package available for an independent PD connection or input power monitoring

## **Applications**

- High speed data communications
- 1x/2x/4x Fiber Channel receivers
- Gigabit ethernet

## Package

• TO-CAN





## Absolute Maximum Ratings

| Parameter             | Symbol           | Value       | Unit | Conditions |
|-----------------------|------------------|-------------|------|------------|
| Supply voltage        | V <sub>cc</sub>  | -0.3 to 4.0 | ٧    | -          |
| Operating temperature | T <sub>opr</sub> | -40 to +85  |      | -          |
| Storage temperature   | T <sub>stg</sub> | -40 to +85  |      | -          |

# $Electrical\ and\ Optical\ characteristics\ T_a=25\quad unless\ otherwise\ noted)$

| Parameter                            | Symbol           | Min. | Тур. | Max. | Unit | Conditions                                |
|--------------------------------------|------------------|------|------|------|------|---|
| Sensitive wavelength                 |                  | 650  | -    | 880  | nm   | -   |
| Operating voltage                    | V <sub>op</sub>  | 3    | 3.3  | 3.6  | V    | -   |
| Supply current                       | I <sub>cc</sub>  | 30   | 42   | 55   | mA   | -   |
| Bit rate                             | BR               | -    | 4.25 | -    | -    | -   |
| Bandwidth @-3dB                      | BW               | 2.2  | 2.8  | -    | GHz  | R <sub>L</sub> =50 P <sub>i</sub> =-10dBm |
| Optical sensitivity                  | P <sub>min</sub> | -    | -17  | -    | dBm  | Single ended BER=10 <sup>-10</sup>        |
| Output impedance                     | Z <sub>o</sub>   | -    | 50   | -    |      | single ended                              |
| Differential output voltage          | V <sub>o</sub>   | 85   | 130  | 187  | mVpp | Single ended R <sub>L</sub> =50           |
| Photo-electric conversion efficiency | PE               | -    | 1.6  | -    | kV/W | Single ended R <sub>L</sub> =50           |



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