

## Extended InGaAs Photodiodes

## GAP1000-2.6-TEC1

Wavelength range  
Cooler  
Packages

1000nm – 2600nm  
TEC1  
TO5, 8-Pin

### Applications

- Process monitoring
- Process analysis
- Infrared spectroscopy
- Optical power meters
- Temperature sensors
- Medical analysis

### Features

- High responsivity
- High shunt resistance
- Low capacitance
- Planar design for high reliability

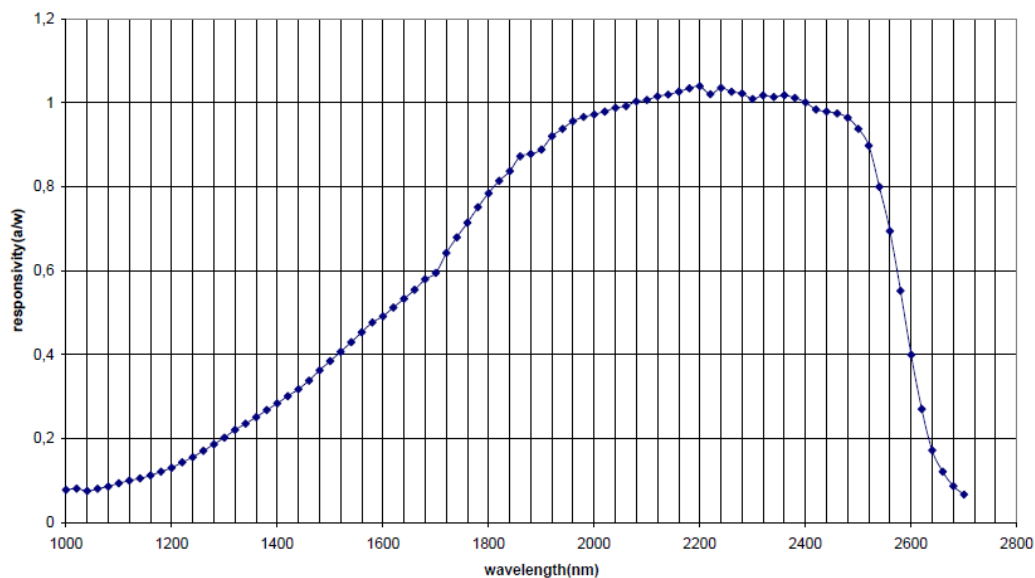
### Technical Data

| Device              | Terms & Conditions   |                   | GAP1000/2.6<br>@<br>23°C +/- 2°C | -TEC1<br>@<br>-10°C     | Units          |
|---------------------|----------------------|-------------------|----------------------------------|-------------------------|----------------|
| Active area         |                      |                   | 1                                | 1                       | mm dia         |
| Peak Spectral range |                      | typ               | 2,2                              |                         | µm             |
| Spectral Cutoff     | @ 50%                | typ<br>min<br>typ | 1,0 - 2,6<br>2,5<br>2,6          |                         | µm<br>µm<br>µm |
| Peak responsivity   | @2200nm              | min<br>Typ        | 0,95<br>1,0                      |                         |                |
| Responsivity        | @2000nm              | min<br>typ        |                                  | 0,8<br>0,95             | A/W<br>A/W     |
| Responsivity        | @2400nm              | min<br>Typ        |                                  | 0,9<br>1,0              | A/W<br>A/W     |
| Capacitance         | @ 0V                 | max               | 800                              | 1000                    | pF             |
| Anstiegszeit        | 50 Ohm               | typ               | 80                               | 800                     | ns             |
| Bandbreite          | 50 Ohm, -3dB, 0V     | Typ               | 4                                | 4                       | MHz            |
| Shunt resistance    | @ -10mV              | min<br>typ        | 2<br>4                           | 25<br>50                | KOhm<br>KOhm   |
| Dark current        | @ -0,5V              | typ<br>max        | --<br>50                         | 1,5<br>8                | µA<br>µA       |
| NEP                 | Peak                 | typ               | 2,5*10 <sup>-12</sup>            | 6,5*10 <sup>-13</sup>   | W/√Hz          |
| Bias voltage        |                      | max               | 1                                | 1                       | V              |
| Thermistor          |                      | typ               | --                               | 10                      | KOhm           |
| TEC1                |                      | max               | --                               | 1,5 – 1,5               | V – A          |
| Temperature range   | Operation<br>Storage | max<br>max        | -40 / +85<br>-40 / +100          | -40 / +85<br>-40 / +100 | °C<br>°C       |
| Package             |                      |                   | --                               | TO5, 8-Pin              |                |

**Options**, available on request:

- Other active areas (i.e. diameter 2mm, 1mm, 0,5mm)
- Other packages (i.e. TO5, TO37, TO8, TO66, etc.)
- Devices with receptacles (i.e. SMA, FC/APC, etc.)
- TE-cooled devices (i.e. TE1, TE2)
- Custom devices (i.e. with filters, fiber pigtails, etc.)

**Spectral response curve, typical**



**Package, TO5, 8-Pin**

