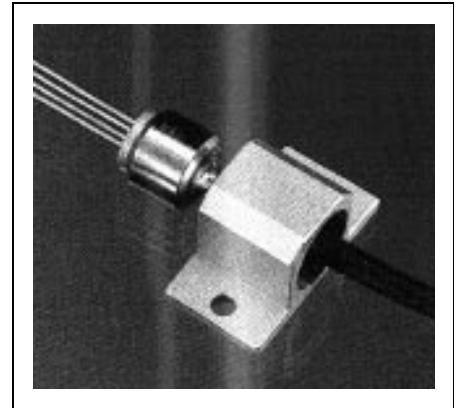


## Ternary PIN Photodiode with Pigtail

**SRD 00214X**  
**SRD 00215X**

- InGaAs/InP - PIN-photodiode
- Designed for telecommunications applications
- Sensitive receiver for the 2<sup>nd</sup> and 3<sup>rd</sup> optical window (1300 nm and 1500 nm)
- Suitable for bit rates up to 1.2 Gbit/s
- Low junction and low package capacitance
- Fast switching times
- Low dark current
- Low noise
- Hermetically sealed 3-pin metal case
- With optimally coupled multimode-fiber pigtail



| Type       | Ordering Code | Connector/Flange                               |
|------------|---------------|------------------------------------------------|
| SRD 00214H | Q62702-Pxxxx  | Pigtail, FC/PC-Multimode connector             |
| SRD 00215H | Q62702-Pxxxx  | Pigtail with flange, FC/PC-Multimode connector |
| SRD 00214C | Q62702-P3059  | Pigtail, DIN-Multimode connector               |
| SRD 00215C | Q62702-P3060  | Pigtail with flange, DIN-Multimode connector   |

**Component with other connector types on request.**

### Maximum Ratings

| Parameter                                                                                                   | Symbol          | Values        | Unit |
|-------------------------------------------------------------------------------------------------------------|-----------------|---------------|------|
| Forward current                                                                                             | $I_F$           | 10            | mA   |
| Reverse voltage                                                                                             | $V_R$           | 20            | V    |
| Operating and storage temperature                                                                           | $T_A$ $T_{Stg}$ | - 40 ... + 85 | °C   |
| Max. radiant power into the opt. port ( $V_R = 5$ V)                                                        | $\Phi_{port}$   | 1             | mW   |
| Soldering time (wave / dip soldering), distance between solder point and base plate, ( $\geq 2$ mm, 260 °C) | $t_s$           | 10            | s    |

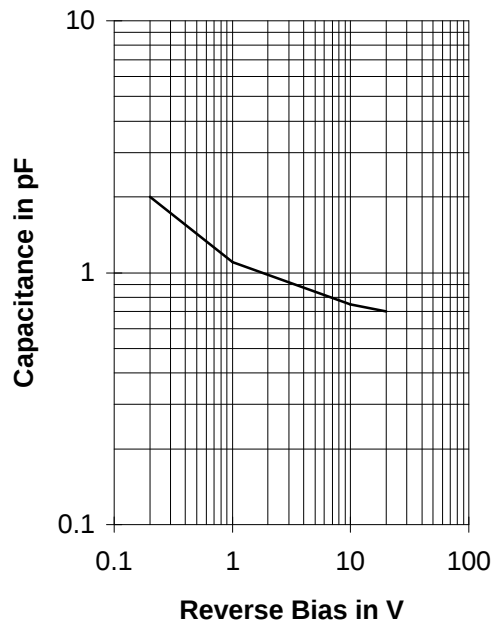
## Characteristics

All optical data refer to a coupled 10/125  $\mu\text{m}$  SM fiber at ambient temperature of 25 °C, unless otherwise defined.

| Parameter                                                                                                                                             | Symbol             | Values              | Unit |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|------|
| Spectral sensitivity<br>$\lambda = 1310 \text{ nm}$ , $V_R = 2 \text{ V}$                                                                             | $S_\lambda$        | 0.9 ( $\geq 0.75$ ) | A/W  |
| Change in spectral sensitivity in operating temperature range                                                                                         | $\Delta S_\lambda$ | $\leq 0.2$          | %/K  |
| Rise and fall time (10 % - 90 %)<br>$R_L = 50 \Omega$ , $V_R = 2 \text{ V}$ , $\lambda = 1310 \text{ nm}$ ,<br>$\Phi_{\text{port}} = 100 \mu\text{W}$ | $t_r$ ; $t_f$      | 0.3 ( $\leq 1.0$ )  | ns   |
| Total capacitance<br>$V_R = 2 \text{ V}$ , $\Phi_{\text{port}} = 0$ , $f = 1 \text{ MHz}$                                                             | $C_2$              | 1 ( $\leq 1.5$ )    | pF   |
| Dark current<br>$V_R = 2 \text{ V}$ , $T_A = 85 \text{ °C}$ , $\Phi_{\text{port}} = 0$                                                                | $I_D$              | 1 ( $< 50$ )        | nA   |
| Backreflection of optical power into optical port                                                                                                     | $R$                | $\leq -20$          | dB   |

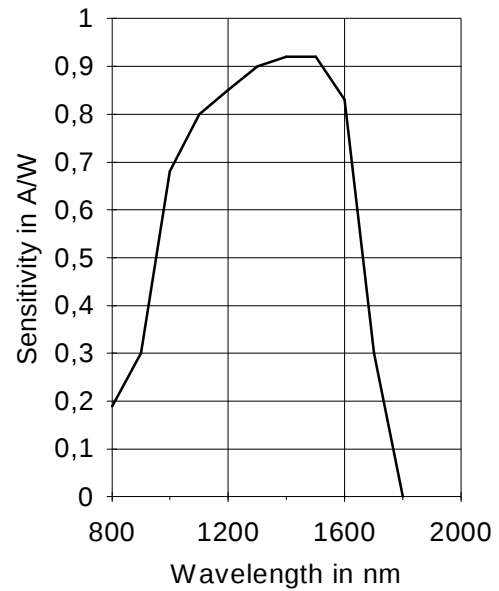
## Capacitance $C = f(V_R)$

$\Phi_{\text{port}} = 0, f = 1 \text{ MHz}$



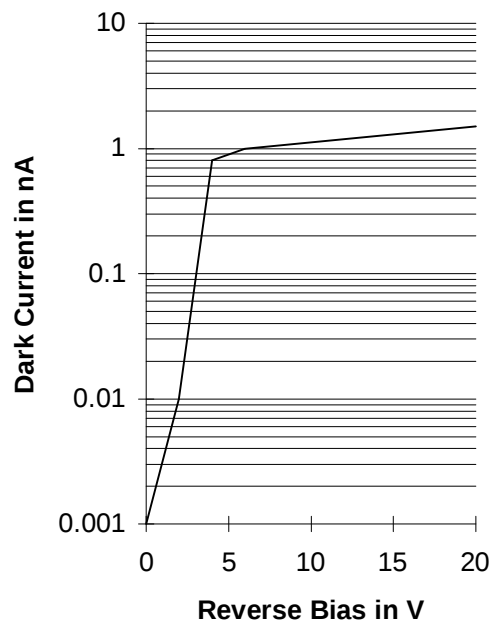
## Relative Spectral Sensitivity

$V_R = 5 \text{ V}$



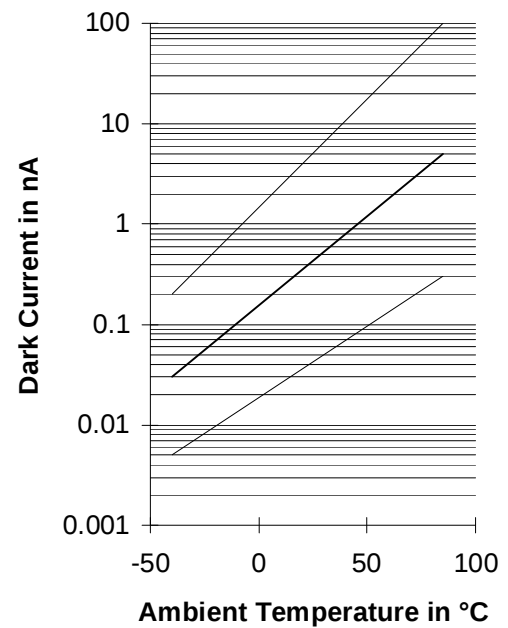
## Dark Current $I_R = f(V_R)$

$I_F = f(V_F)$

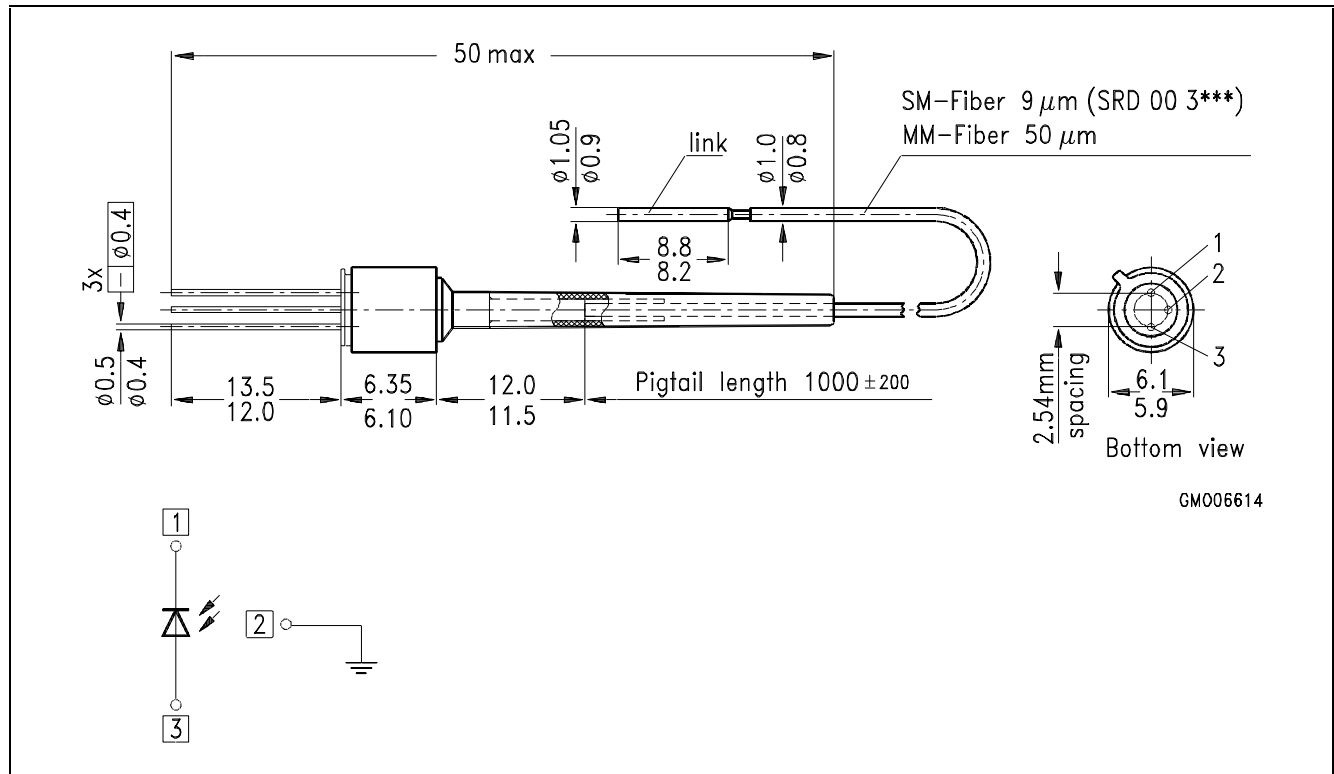


## Dark Current $I_R = f(T_A)$

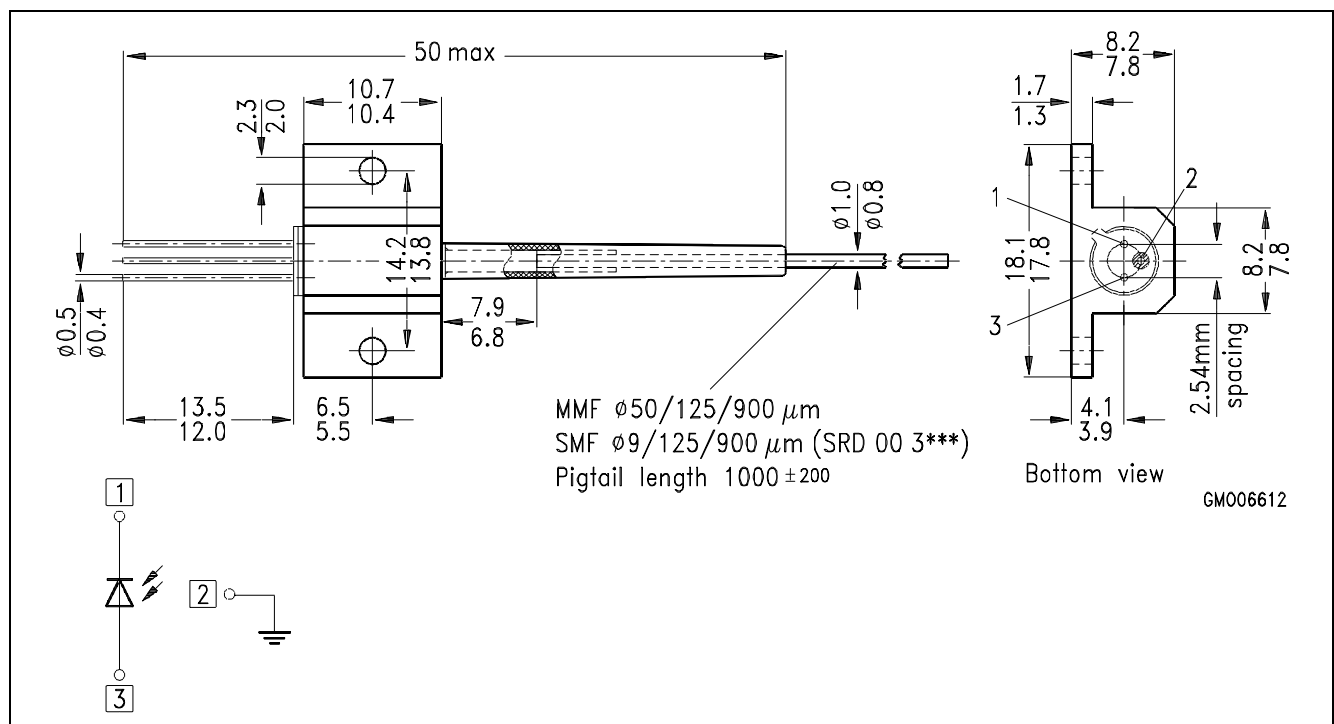
$\Phi_{\text{port}} = 0, V_R = 5 \text{ V}$



## Package Outlines (Dimensions in mm)



## SRD 00214X



## SRD 00215X