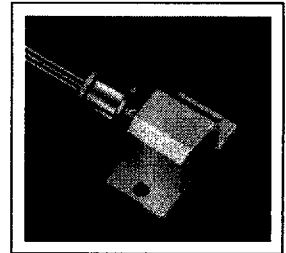


Ternary PIN Photodiode with Blocking Filter for 3rd Window

SRD 00314X
SRD 00315X

- InGaAs/InP - PIN-photodiode
- Designed for telecommunications applications
- Sensitive receiver for the 2nd optical window (1300 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
- Optimally coupled singlemode-fiber pigtail
- High reverse-current stability from planar structure



Type	Ordering Code	Connector/Flange
SRD 00314A	Q62702-Pxxxx	Pigtail, DIN singlemode
SRD 00315A	Q62702-P3048	Pigtail with flange, DIN singlemode
SRD 00314G	Q62702-Pxxxx	Pigtail, FC/PC-connector
SRD 00315G	Q62702-Pxxxx	Pigtail with flange, FC/PC-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)	Φ_{port}	1	mW
Soldering time (wave / dip soldering), distance between solder point and base plate (≥ 2 mm, 260 °C)	t_s	10	s

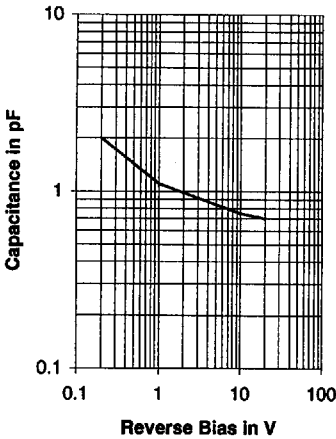
Characteristics

All optical data refer to a coupled 10/125 μm SM fiber at ambient temperature of 25 °C, unless otherwise defined.

Parameter	Symbol	Values	Unit
Spectral sensitivity $\lambda = 1310 \text{ nm}$, $V_R = 2 \text{ V}$	S_λ	0.80 (≥ 0.70)	A/W
Change in spectral sensitivity in operating temperature range	S_λ	≤ 0.2	%/K
Rise and fall time (10% – 90%) $R_L = 50 \Omega$, $V_R = 2 \text{ V}$, $\lambda = 1310 \text{ nm}$, $\Phi_{\text{port}} = 100 \mu\text{W}$	t_r , t_f	0.3 (≤ 0.5)	ns
Total capacitance $V_R = 2 \text{ V}$, $\Phi_{\text{port}} = 0$, $f = 1 \text{ MHz}$	C_2	1 (≤ 1.5)	pF
Dark current $V_R = 2 \text{ V}$, $T_A = 85 \text{ °C}$, $\Phi_{\text{port}} = 0$	I_D	1 (< 50)	nA
Optical attenuation for 3 rd window Cross talk	CRT	– 50	dB
Backreflection of optical power into optical port	R	≤ -30	dB

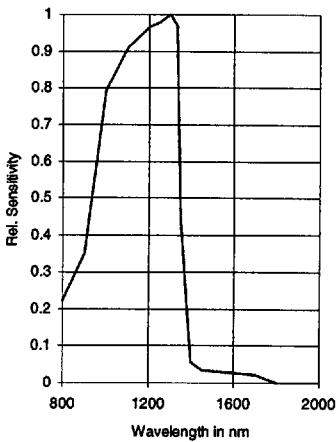
Capacitance $C = f(V_R)$

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



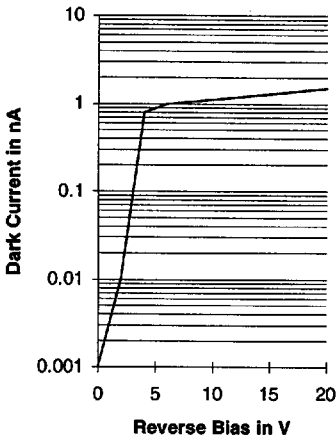
Relative Spectral Sensitivity

$V_R = 5 \text{ V}$



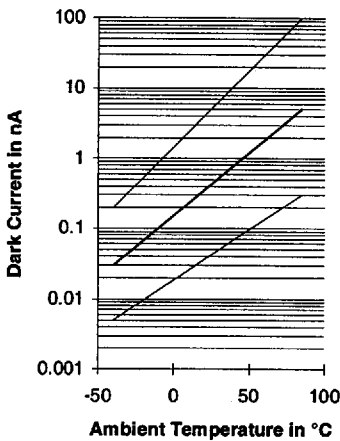
Dark Current $I_R = f(V_R)$

$I_F = f(V_F)$

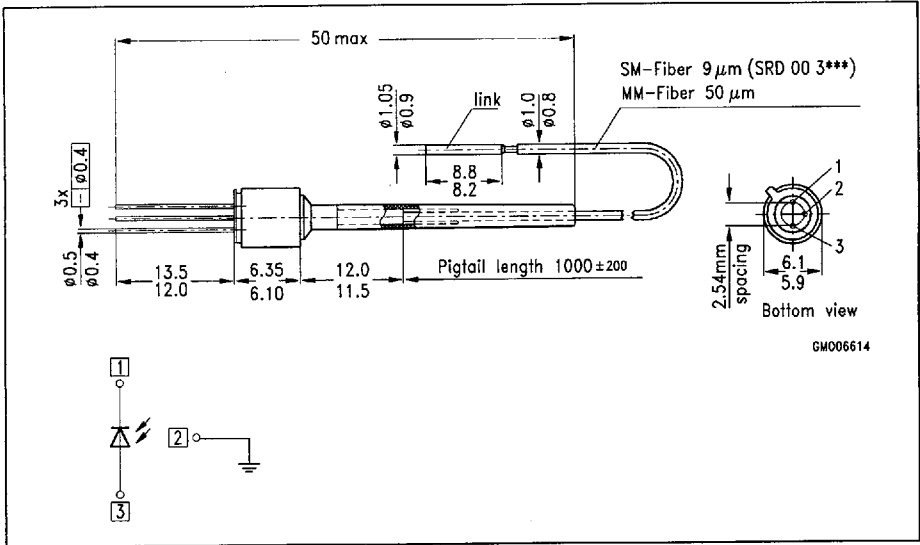


Dark Current $I_R = f(T_A)$

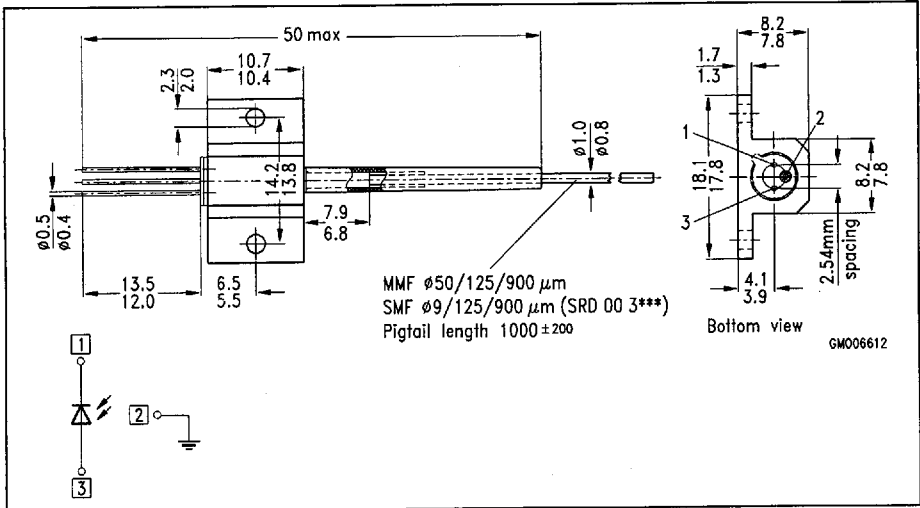
$\Phi_{\text{port}} = 0, V_R = 5 \text{ V}$



Package Outlines (Dimensions in mm)



SRD 00314X



SRD 00315X