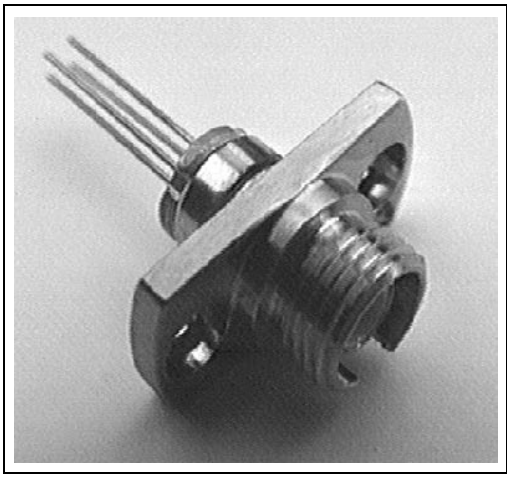
SIEMENS

Ternary PIN Photodiode in Receptacle Package **SRD 00217X**
Preliminary Data

- InGaAs/InP - PIN-photodiode
- Designed for application in fiber-optic communication systems
- Sensitive receiver for the 2nd and 3rd 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
- High reverse-current stability by planar structure
- High spectral sensitivity by build in optics
- FC-SM Receptacle with 2-hole flange
- Hermetically sealed 3-pin metal case



Type	Ordering Code	Connector/Flange
SRD 00217H	Q62702-P3052	FC, 2-hole

Maximum Ratings

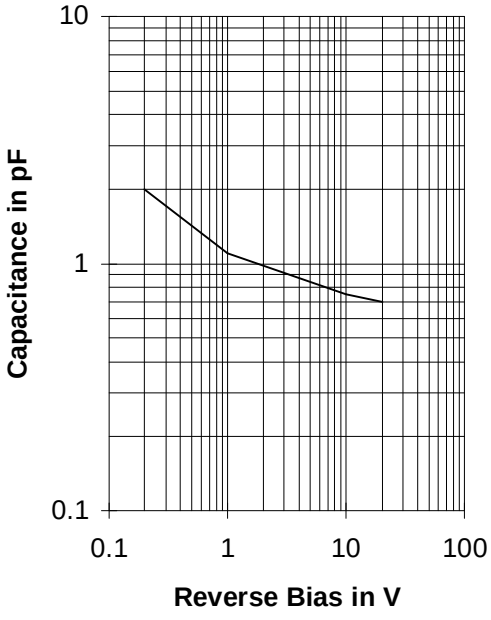
Parameter	Symbol	Values	Unit
Forward current	I_F	10	mA
Reverse voltage	V_R	20	V
Operating and storage temperature	T_A T_{stg}	– 40 … + 85	°C
Max. radiant power into the opt. port (V_R = 5 V)	Φ_{port}	1	mW
Soldering time (wave / dip soldering), distance between solder point and base plate ≥ 2 mm, 260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

Characteristics

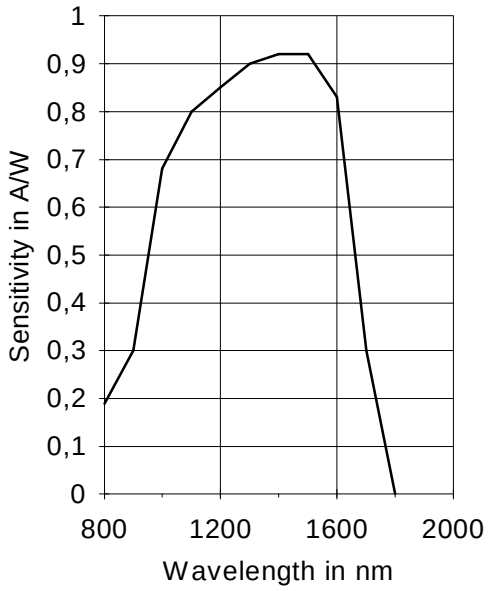
All optical data refer to a coupled 10/125 µm SM fiber.

Parameter	Symbol	Values	Unit
Spectral sensitivity λ = 1300 nm, V_R = 5 V	S_λ	0.9 (≥ 0.8)	A/W
Change in spectral sensitivity in operating temperature range	ΔS_λ	< 0.2	%/K
Rise and fall time R_L = 50 Ω, V_R = 5 V, λ = 1310 nm, Φ_{port} = 100 µW	t_r; t_f	0.3 (≤ 0.5)	ns
Total capacitance V_R = 5 V, Φ_{port} = 0, f = 1 MHz	C_5	1.0 (≤ 1.5)	pF
Dark current V_R = 5 V, T_A = 85 °C, Φ_{port} = 0	I_D	1 (≤ 50)	nA
Backreflection of optical power into optical port	R	< – 20	dB

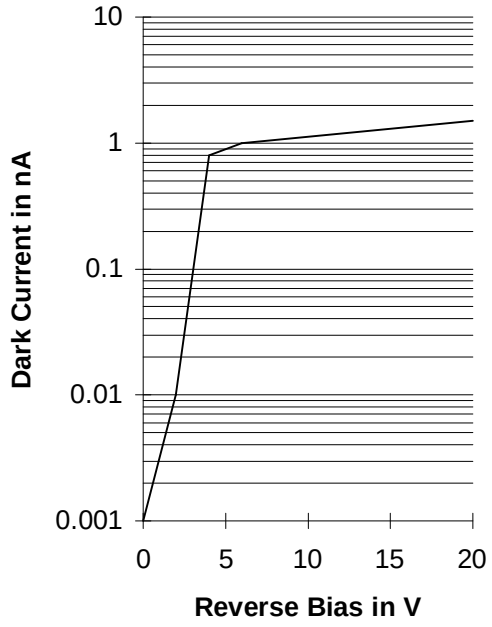
Capacitance $C = f(V_R)$
Φ_{port} = 0, f = 1 MHz



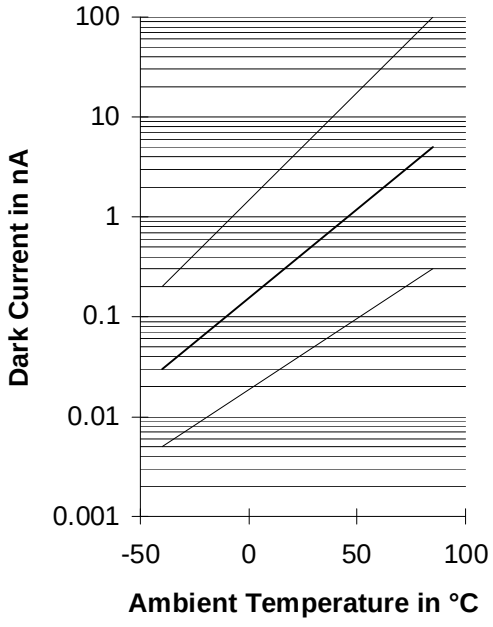
Relative Spectral Sensitivity
V_R = 5 V



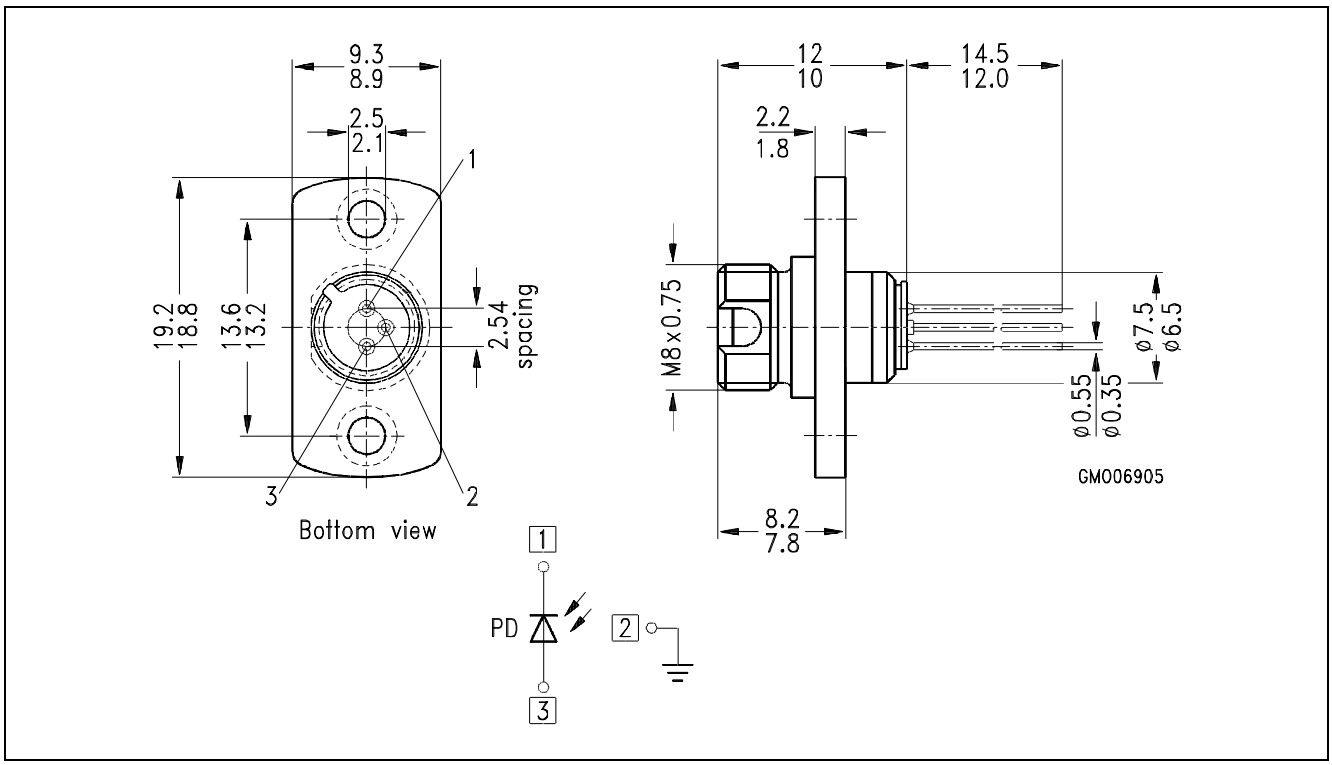
Dark Current $I_R = f(V_R)$
$I_F = f(V_F)$



Dark Current $I_R = f(T_A)$
$\Phi_{port} = 0$, $V_R = 5$ V



Package Outlines (Dimensions in mm)



SRD 00217X