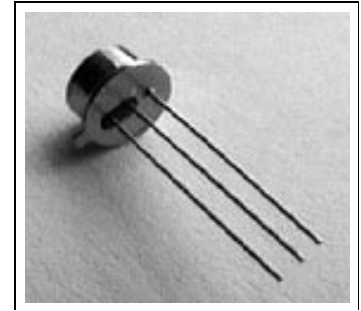


Ternary PIN Photodiode in TO-Package, Central Pin

SRD 00231Z

- InGaAs/InP – PIN-photodiode
- Designed for application in fiber-optic communication systems
- Sensitive receiver for the 2nd and 3rd optical window (1300nm and 1500nm)
- Suitable for bit rates up to 2.5 Gbit/s
- Low junction and low package capacitance
- Fast switching times
- Low dark current
- Low noise
- High reverse-current stability by planar structure
- Hermetically sealed 3-pin metal case with central pin



Type	Ordering Code	Connector/Flange
SRD 00231Z	Q62702-Pxxxx	TO with central pin

Maximum Ratings

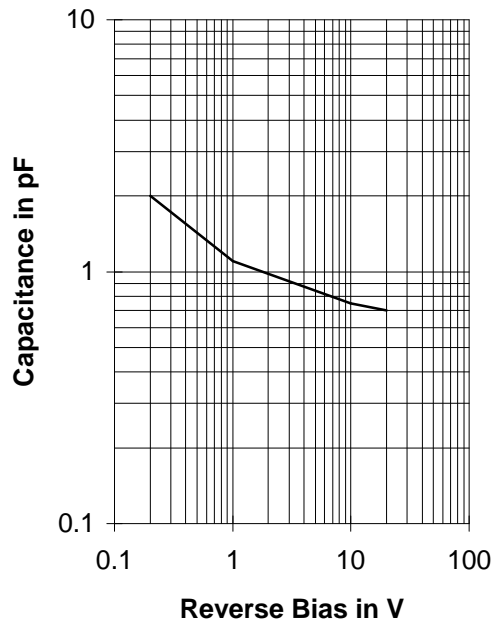
Parameter	Symbol	Values	Unit
Forward current	I_F	10	mA
Reverse voltage	V_R	20	V
Operating and storage temperature	$T_A; T_{stg}$	- 40 ... + 85	°C
Max. radiant power into the opt. port ($V_R = 5$ V)	Φ_{port}	1	mW
Soldering time (wave / dip soldering), distance between solder point and base plate ≥ 2 mm,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

Characteristics

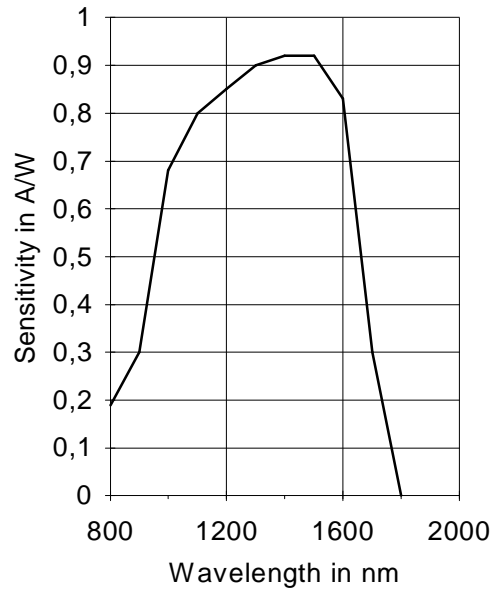
All optical data refer to an optimally coupled 10/125 μm SM fiber.

Parameter	Symbol	Values	Unit
Spectral sensitivity $\lambda = 1300 \text{ nm}$, $V_R = 5 \text{ V}$	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 $R_L = 50 \text{ } \Omega$, $V_R = 5 \text{ V}$, $\lambda = 1310 \text{ nm}$, $\Phi_{\text{port}} = 100 \text{ } \mu\text{W}$	t_r ; t_f	0.25 (≤ 0.4)	ns
Total capacitance $V_R = 5 \text{ V}$, $\Phi_{\text{port}} = 0$ $f = 1 \text{ MHz}$	C_5	0.7 (≤ 0.9)	pF
Dark current $V_R = 5 \text{ V}$, $T_A = 85 \text{ } ^\circ\text{C}$, $\Phi_{\text{port}} = 0$	I_D	1 (≤ 50)	nA

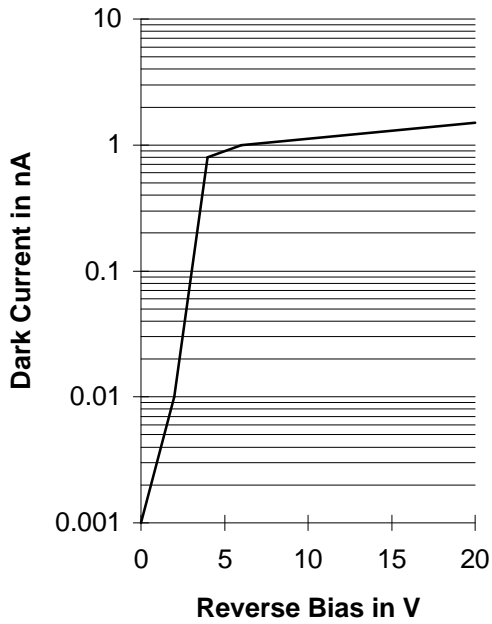
Capacitance $C = f(V_R)$
 $\Phi_{\text{port}} = 0$, $f = 1 \text{ MHz}$



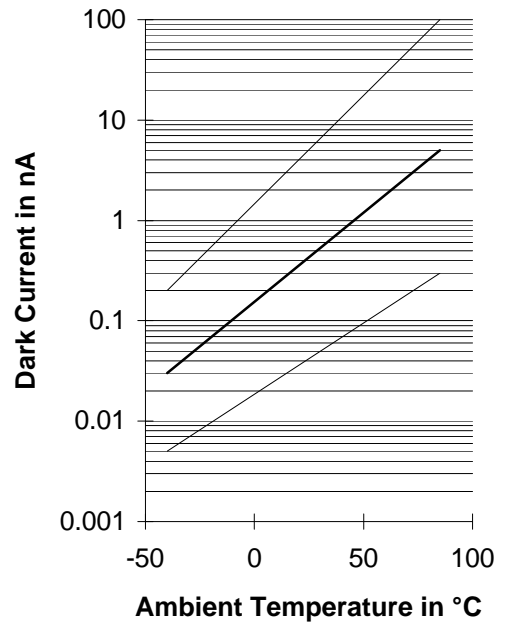
Relative Spectral Sensitivity
 $V_R = 5 \text{ V}$



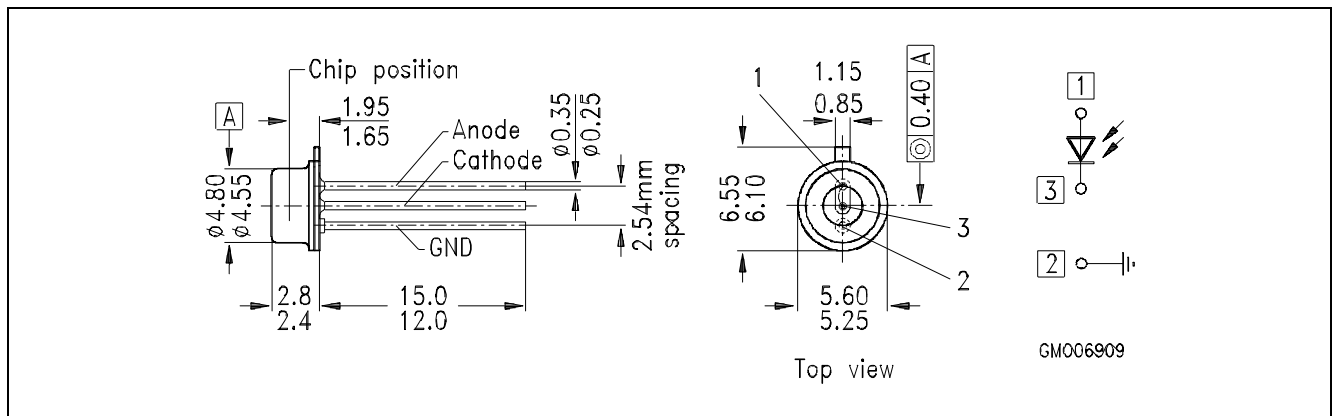
Dark Current $I_R = f(V_R)$
 $I_F = f(V_F)$



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



Package Outlines (Dimensions in mm)



SRD 00231Z