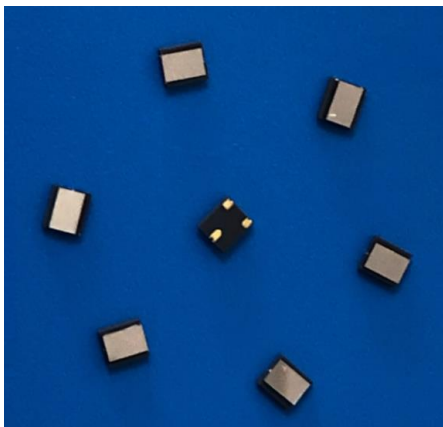


Silicon avalanched photodiode



Description

Circular active area APD chip with 500um diameter.
Ceramic carrier type non hermetic SMD package with
Clear 905nm bandpass filter window. Reflow solderable.

Features

- * Top illumination planar APD
- * $\Phi 500\mu\text{m}$ active area
- * Fast rise time, low noise
- * Operating temperature is from -40 to $+80^\circ\text{C}$

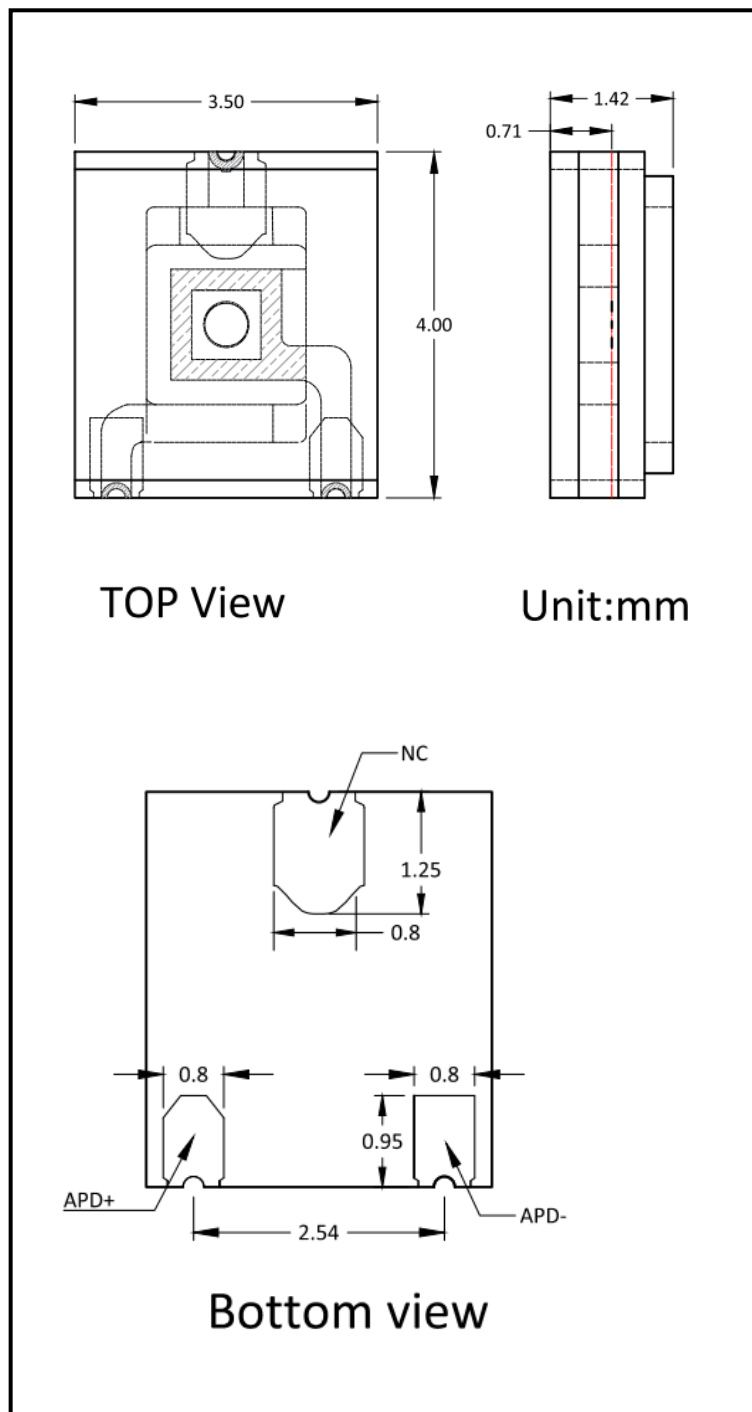
Applications

- * Laser range finder
- * High speed optical communications

Absolute Values

Operating voltage	$0.95 \times V_{BR}$
Forward current	1mA
Power dissipation	1mW

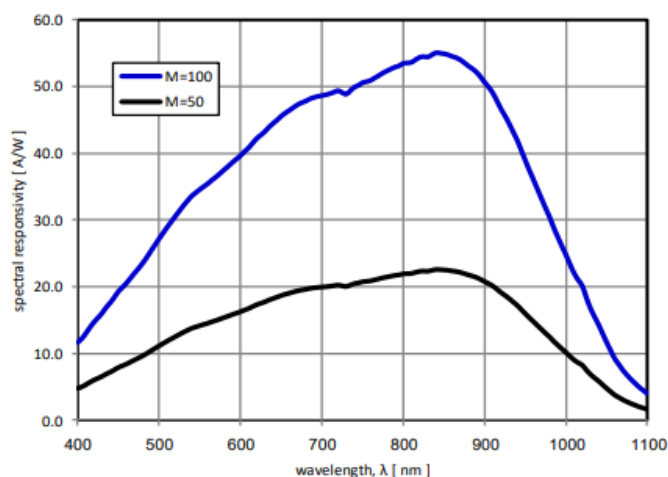
Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission.
Specifications are subject change without notice



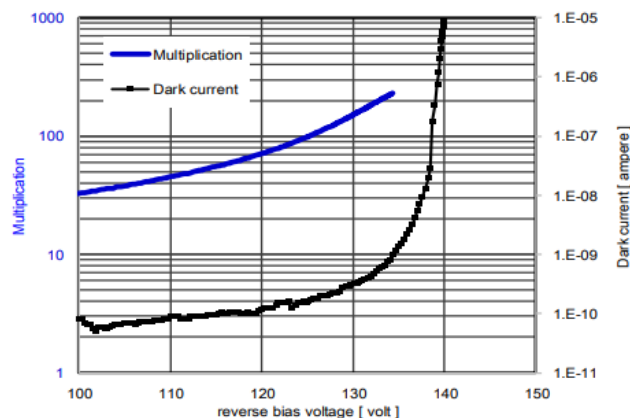
Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	λ		400-1100			nm
Peak sensitivity wavelength	λ_p		905			nm
Active diameter	ϕ		500			μm
Effective photosensitive area			0.196			mm^2
Dark current	I_D	M=100		-	1.0	nA
Junction Capacitance	C	M=100, f=1MHz		1.0		PF
Reverse breakdown voltage	V_{BR}	$I_D=10\mu\text{A}$		150	200	V
Operating voltage temperature coefficient	δ	$T_c=-20\sim+60^\circ\text{C}$	1.1			$\text{V}/^\circ\text{C}$
Rise time	t_R	f=1MHz, $\lambda=905\text{nm}$, 50 Ω	-	0.5	-	ns
Photo current gain	M	$U_r=0.90 * U_{br}$		100		
Reponsivity	Re	$\lambda=905\text{nm}, \phi_e=1\mu\text{w}, M=1$		0.5		A/W

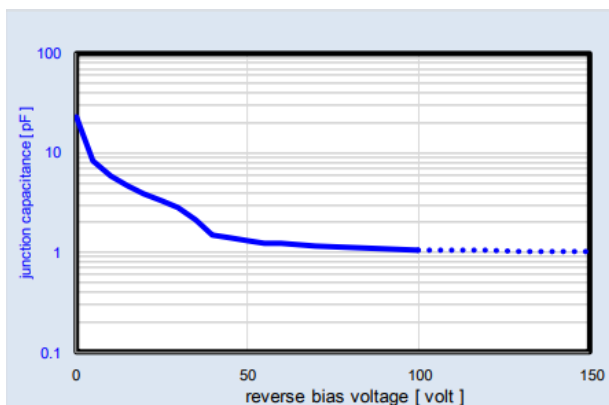
■ Responsivity vs. Multiplication



■ Multiplication and Dark current vs. Ubias



■ Capacitance vs. Operating voltage



■ Responsivity (M=100)

