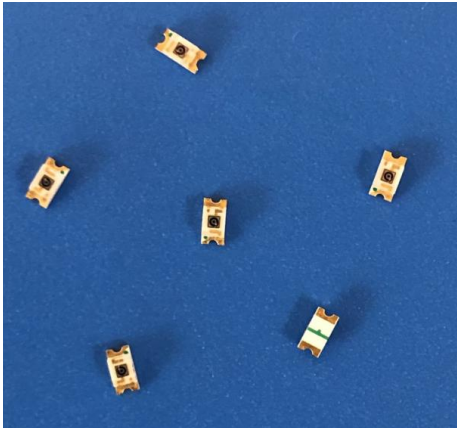


## Silicon avalanched photodiode



### Description

Circular active area APD chip with 500um diameter.  
Clear 3216 SMD package with very compact design.

### Features

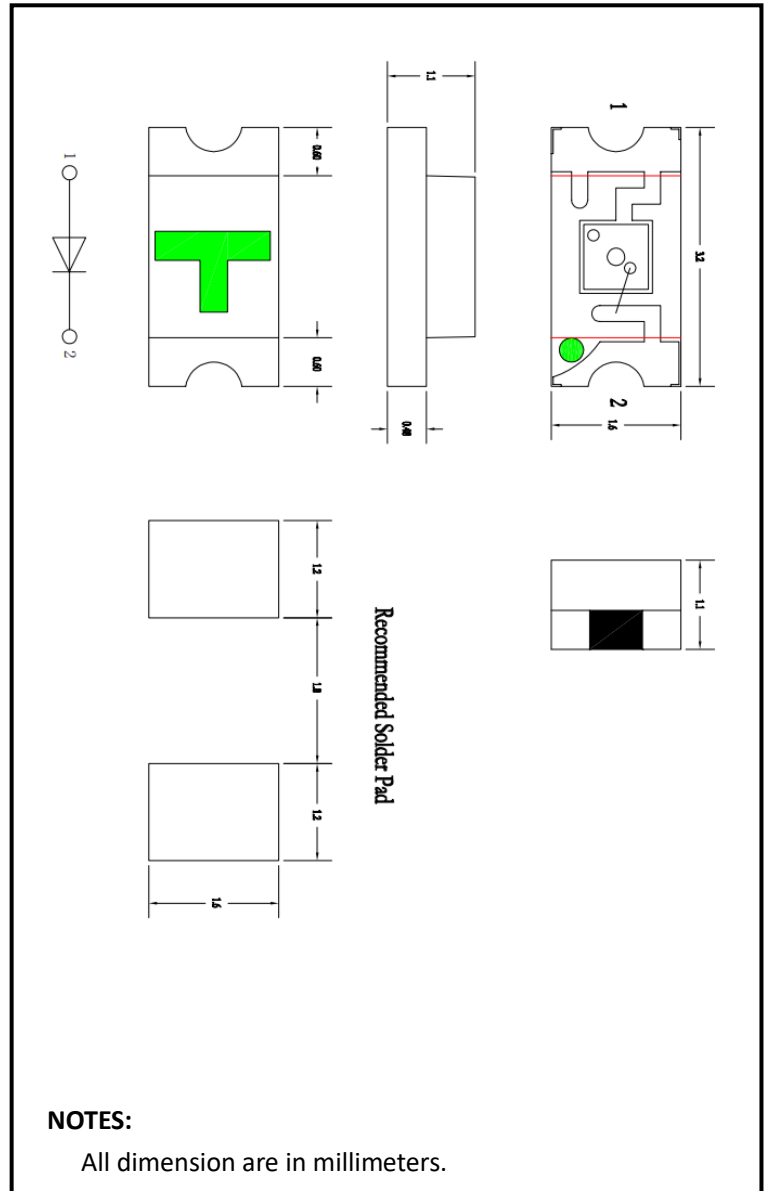
- \* Top illumination planar APD
- \*  $\Phi 500\mu\text{m}$  active area
- \* High gain at low bias voltage
- \* Operating temperature is from  $-40$  to  $+80^\circ\text{C}$

### Applications

- \* Laser range finder
- \* High speed optical communications

### Absolute Values

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

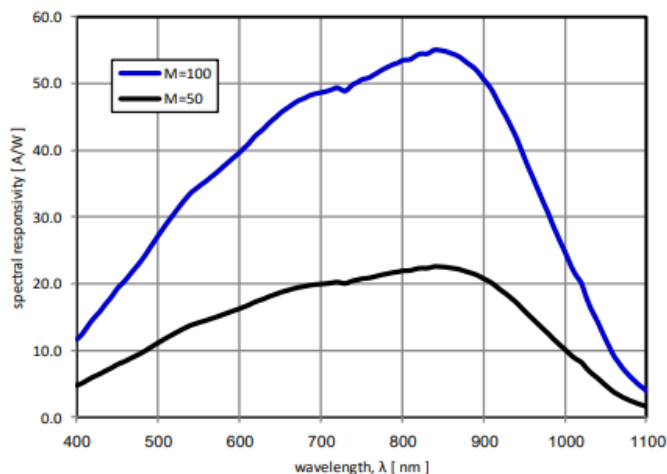


Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice

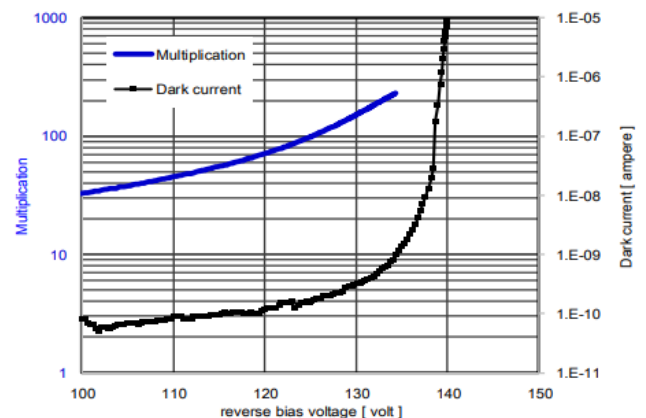
## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	$\lambda$		400-1100			nm
Peak sensitivity wavelength	$\lambda_p$		840			nm
Active diameter	$\phi$		500			$\mu\text{m}$
Effective photosensitive area			0.196			$\text{mm}^2$
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	$\delta$	$T_c=-20\sim+60^\circ\text{C}$	1.1			$\text{V}/^\circ\text{C}$
Rise time	$t_R$	f=1MHz, $\lambda=905\text{nm}$ , 50 $\Omega$	-	0.5	-	ns
Photo current gain	M	$U_r=0.90 \cdot U_{br}$		100		
Reponsivity	$Re$	$\lambda=840\text{nm}$ , $\phi_e=1\mu\text{w}$ , M=1		0.5		A/W

### ■ Responsivity vs. Multiplication



### ■ Multiplication and Dark current vs. Ubias



### ■ Capacitance vs. Operating voltage

