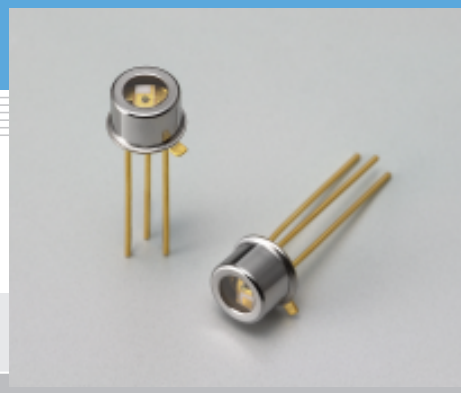


InGaAs APD

G8931-03

2.5 Gbps operation, avalanche photodiode



Features

- 2.5 Gbps operation
- Low capacitance
- Active area: $\phi 0.03$ mm

Applications

- Optical fiber communications
- SDH/SONET
- Metropolitan area network

General rating

Parameter	Symbol	Value	Unit
Active area	-	$\phi 0.03$	mm

Absolute maximum ratings

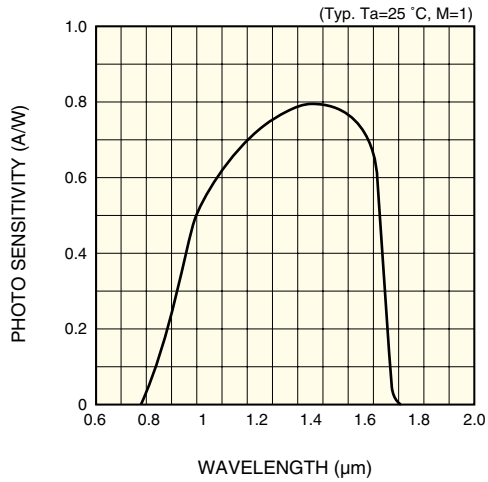
Parameter	Symbol	Value	Unit
Forward current	I _F	2	mA
Reverse current	I _R	500	μ A
Operating temperature	T _{opr}	-40 to +85	°C
Storage temperature	T _{stg}	-55 to +125	°C

Electrical and optical characteristics (T_a=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Photo sensitivity	S	$\lambda=1.3 \mu\text{m}$, M=1	0.73	-	-	A/W
Breakdown voltage	V _{BR}	I _D =10 μ A	45	-	80	V
Temperature coefficient of V _{BR}	δ	*	-	0.2	-	%/°C
Dark current	I _D	V _R =V _{BR} \times 0.95	-	20	50	nA
Terminal capacitance	C _t	V _R =V _{BR} \times 0.95, f=1 MHz	-	-	0.3	pF
Cut-off frequency	f _c	M=10	-	2	-	GHz
Gain	M	$\lambda=1.55 \mu\text{m}$	15	-	-	-

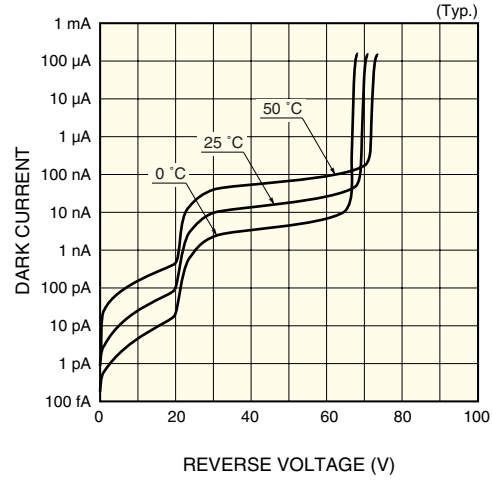
* $\delta = [V_B(25 + \Delta T) - V_B(25)] / [\Delta T \times V_B(25)] \times 100$ (%/°C)

■ Spectral response



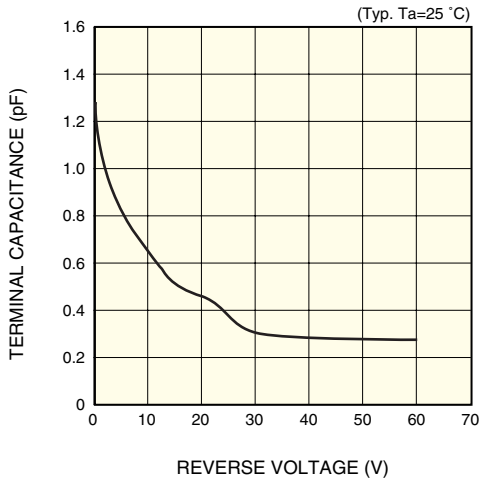
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■ Dark current vs. reverse voltage



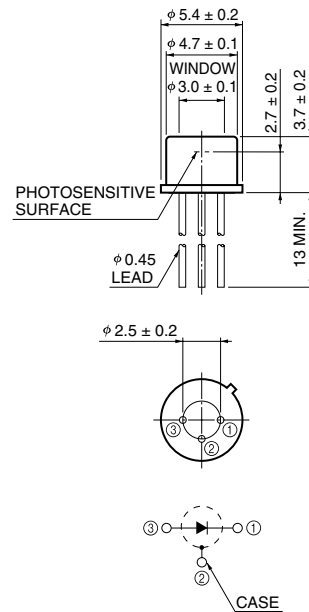
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■ Terminal capacitance vs. reverse voltage



KAPDB0070EA

■ Dimensional outline (unit: mm)



KIRDA0154EB

HAMAMATSU

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