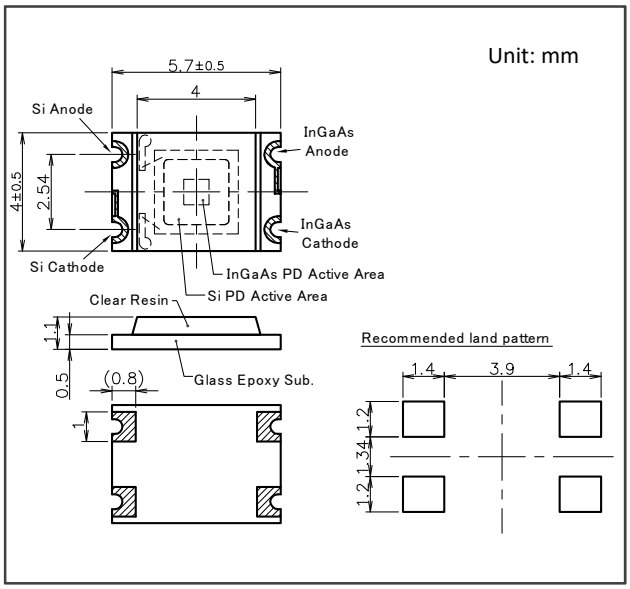
Preliminary

Features

- Integrated Si and InGaAs photodiode
- Same optical axes configuration
- Wide sensitive wavelength range
- Low dark current

Applications

- Sensing component materials (gas, solute, etc…)
- Laser diode and LED monitors
- Wide range spectroscopy



Absolute Maximum Ratings

Parameter	Symbol	Detector	Value	Unit	Note
Reverse voltage	V_R	Si	10	V	
		InGaAs	10		
Forward current	I_F	Si	10	mA	
		InGaAs	10		
Reverse current	I_R	Si	1	mA	
		InGaAs	5		
Operating temperature	T_{opr}	-	-20 to +80	°C	Avoid dew condensation
Storage temperature	T_{stg}	-	-30 to +85	°C	Avoid dew condensation

Electrical and Optical Characteristics (Ta=25°C unless otherwise noted)

Parameter	Symbol	Detector	Min.	Typ.	Max.	Unit	Test Condition
Active area	A	Si		2.2 x 2.2		mm^2	
		InGaAs		0.86 x 0.86			
Responsivity	R	Si	0.5	0.6	-	A/W	V_R=0V, λ=850nm
			0.6	0.7	-		V_R=0V, λ=950nm
		InGaAs	0.7	0.8	-		V_R=0V, λ=1310nm
			0.8	0.9	-		V_R=0V, λ=1550nm
Dark current	I_D	Si	-	0.1	10	nA	V_R=5V
		InGaAs	-	1	10		
Terminal capacitance	C_t	Si	-	30	50	pF	V_R=5V, f=1MHz
		InGaAs	-	45	60		

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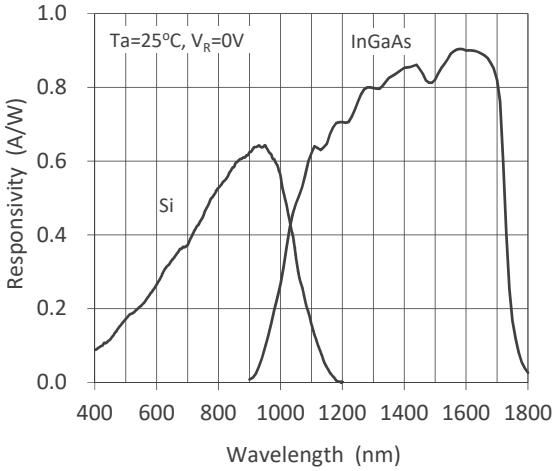
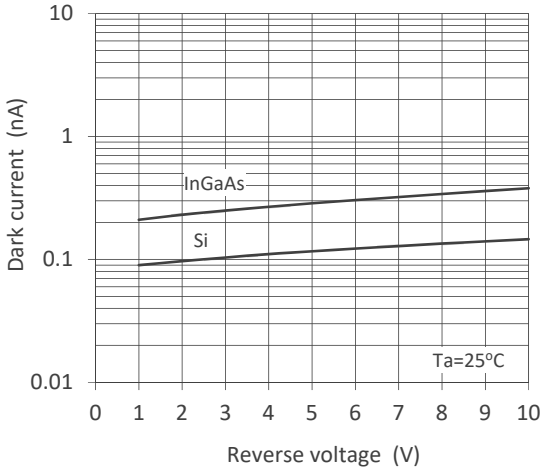
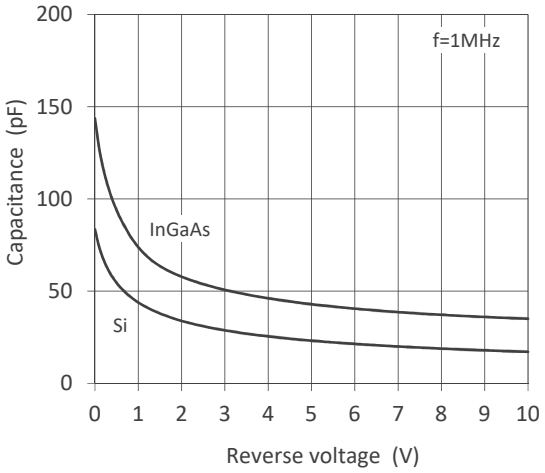
Spectral Responsivity



Dark Current - Reverse Voltage



Capacitance - Reverse Voltage



- Specifications , characteristics, data, materials, structures specified in this datasheet are subject to change without notice. Please refer to the latest specification before use of the products.
- Products listed in this datasheet comply with the RoHS Directive (2011/65/EU).

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