RayCan

850 nm PIN Photodiode

RD13xxx1-S

Description

The RayCan 850 nm pin PD is designed for high-speed, high-performance communication applications.

Features

• Data rate up to 4.25 Gbps

Applications

• Access network for long distance

• Local area network

• Gigabit Ethernet

Electrical and optical characteristics

(T = 25°C unless otherwise stated)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Responsivity	R	0.5			*A/W*	λ = 850 nm
Active area diameter	d_{act}		60		μm	
Dark current	I_d			1.0	*nA*	V_{bias} = 5 V
Breakdown Voltage	V_B	40			*V*	I_d = 1 μA
Rise and fall times	t_r t_f		~ 90 ~ 90		*psec*	(20%-80%)

Absolute maximum ratings

(T = 25°C unless otherwise stated)

Parameter	Symbol	Rating	Unit	Notes
Forward current	I_f	3	*mA*	
Reverse voltage	V_r	40	*V*	
Operating temperature	T_{op}	0 ~ 85	*°C*	
Storage temperature	T_{stg}	-40 ~ 100	*°C*	
Reflow temperature	T_{ref}	260	*°C*	*10 sec.* *2 mm from case*

Notice

Conditions exceeding those listed may cause permanent damage to the device. Devices subjected to conditions beyond the limits specified for extended periods of time may adversely affect reliability.

Caution

This product is sensitive to the electrostatic discharge(ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product.

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Preliminary

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