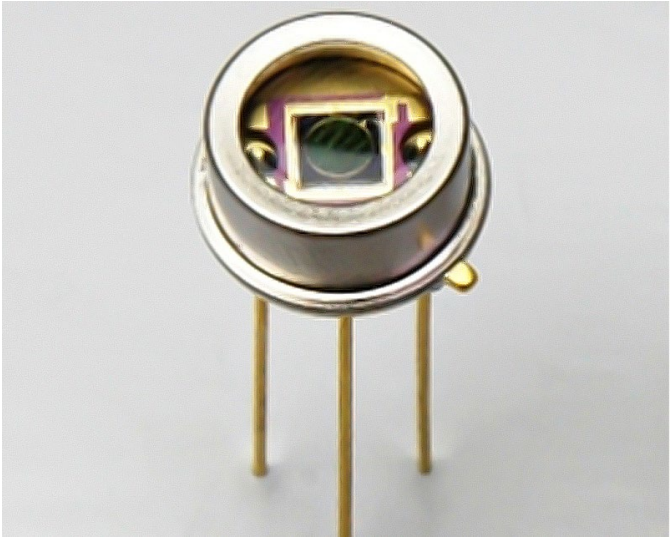
铟镓砷 InGaAs 2mm PIN光电二极管



产品描述:

InGaAs 光电二极管主要用于近红外探测，具有高速、高灵敏度、低噪音、宽广普响应范围（0.5 μm to 2.6 μm）等特点。

应用领域:

- 截止波长：2.6μm
- 低成本
- 感光面积：ϕ2 mm
- 低噪声
- 高灵敏度
- 高可靠性
- 高速响应

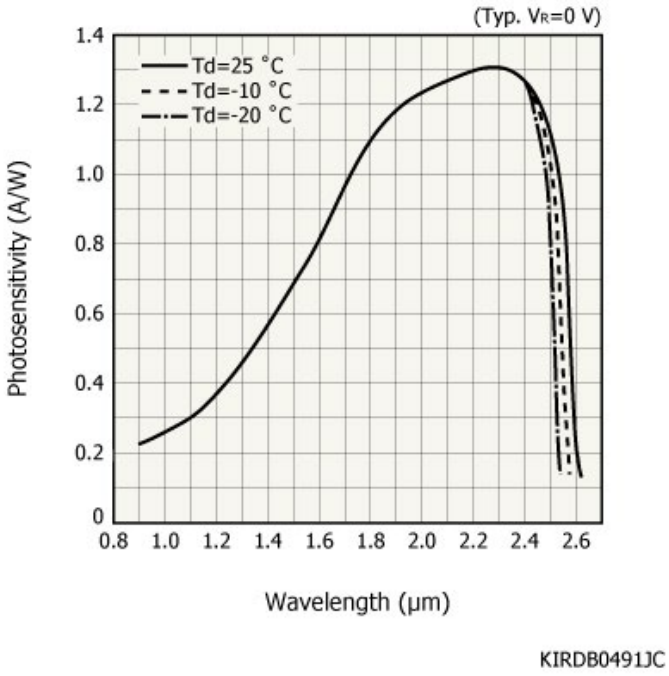
应用领域:

- 光功率计
- 气体分析
- 湿度计
- 近红外光度法

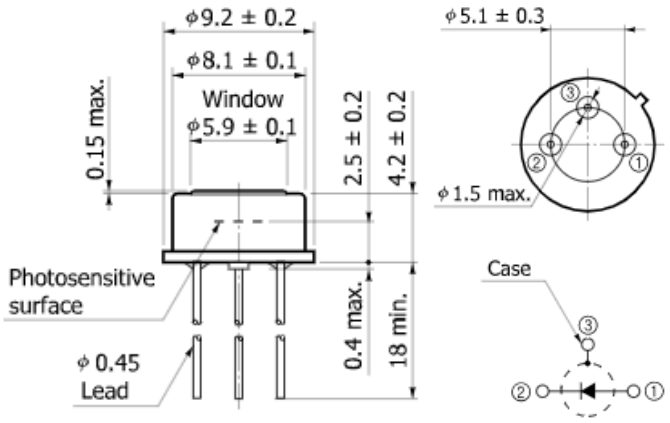
技术参数:

感光面积	ϕ2 mm
像元个数	1
封装	Metal
封装类型	TO-5
制冷方式	Non-cooled
光谱响应范围	0.9 to 2.6 µm
峰值灵敏度波长(典型值)	2.3 µm
灵敏度 (典型值)	1.3 A/W
暗电流 (最大值)	100000 nA
截至频率 (典型值)	1.5 MHz
结电容(典型值)	1800 pF
噪声等效功率 (典型值)	2×10-12 W/Hz1/2
测量条件	Typ. Ta=25 °C, unless otherwise noted, Photosensitivity: λ=λp, Dark current: VR=0.5 V, Cutoff frequency: VR=0 V, RL=50 Ω,Terminal capacitance: VR=0 V, f=1 MHz.

光谱响应:



外形尺寸(单位:mm):



Distance from photosensitive area center to cap center
-0.2≤X≤+0.2
-0.2≤Y≤+0.2

KIRDA0221EA

其它型号参考:

Structure

Type no.	Dimensional outline/ Window material*1	Package	Cooling	Photosensitive area (mm)
G12183-003K	(1)/K	TO-18	Non-cooled	φ0.3
G12183-005K				φ0.5
G12183-010K				φ1
G12183-020K	(2)/K	TO-5		φ2
G12183-030K				φ3
G12183-103K	(3)/K	TO-8	One-stage TE-cooled	φ0.3
G12183-105K				φ0.5
G12183-110K				φ1
G12183-120K				φ2
G12183-130K				φ3
G12183-203K	(4)/K	TO-8	Two-stage TE-cooled	φ0.3
G12183-205K				φ0.5
G12183-210K				φ1
G12183-220K				φ2
G12183-230K				φ3
G12183-210KA-03	(5)/K	TO-66	Two-stage TE-cooled	φ1

*1: K=borosilicate glass

The G12183 series may be destroyed or deteriorated by static electricity. Use caution when handling.

Electrical and optical characteristics (Typ. unless otherwise noted)

Type no.	Measurement conditions Chip temperature Tchip (°C)	Thermistor resistance (+25 °C) Rsh (kΩ)	Thermistor B constant (-20/+25 °C) B (K)	Spectral response range λ (μm)	Peak sensitivity wavelength λp (μm)	Photosensitivity S λ=λp Min. (A/W)	Photosensitivity S λ=λp Typ. (A/W)	Dark current ID VR=0.5 V Typ. (μA)	Dark current ID VR=0.5 V Max. (μA)	Temperature coefficient of dark current VR=0.5 V (times/°C)
G12183-003K	25	-	-	0.9 to 2.6	2.3	1	1.3	0.4	4	1.035
G12183-005K								1	10	
G12183-010K								3	30	
G12183-020K								10	100	
G12183-030K								30	300	
G12183-103K	-10	9.0	3300	0.9 to 2.57				0.12	1.2	
G12183-105K								0.3	3	
G12183-110K								0.9	9	
G12183-120K								3	30	
G12183-130K								9	90	
G12183-203K	-20			0.9 to 2.55				0.085	0.85	
G12183-205K								0.21	2.1	
G12183-210K								0.65	6.5	
G12183-220K								2.1	21	
G12183-230K								6	60	
G12183-210KA-03								0.05*4	0.1*4	1.067*4

*4: VR=10 mV

Type no.	Measurement conditions Chip temperature Tchip (°C)	Cutoff frequency fc VR=0 V RL=50 Ω Min. (MHz)	Cutoff frequency fc VR=0 V RL=50 Ω Typ. (MHz)	Terminal capacitance Ct VR=0 V f=1 MHz Typ. (pF)	Terminal capacitance Ct VR=0 V f=1 MHz Max. (pF)	Shunt resistance Rsh VR=10 mV Min. (kΩ)	Shunt resistance Rsh VR=10 mV Typ. (kΩ)	Detectivity D* λ=λp Min. (cm·Hz1/2/W)	Detectivity D* λ=λp Typ. (cm·Hz1/2/W)	Noise equivalent power NEP λ=λp Typ. (W/Hz1/2)	Noise equivalent power NEP λ=λp Max. (W/Hz1/2)
G12183-003K	25	20	50	50	100	20	100	3 × 10^10	9 × 10^10	4 × 10^-13	9 × 10^-13
G12183-005K		5	20	140	300	10	50			5 × 10^-13	1.5 × 10^-12
G12183-010K		2	6	500	1000	2.8	14			1 × 10^-12	3 × 10^-12
G12183-020K		1	1.5	1800	3000	0.65	3			2 × 10^-12	5 × 10^-12
G12183-030K		0.5	0.8	4000	5000	0.25	1.4			3 × 10^-12	8 × 10^-12
G12183-103K	-10	20	70	44	100	200	1000	1 × 10^11	3 × 10^11	1 × 10^-13	3 × 10^-13
G12183-105K		5	25	120	300	100	500			1.5 × 10^-13	4.5 × 10^-13
G12183-110K		2	7	440	1000	28	140			2.5 × 10^-13	8 × 10^-13
G12183-120K		1	2	1500	3000	6.5	30			5.5 × 10^-13	2 × 10^-12
G12183-130K		0.5	0.9	3400	5000	2.8	14			8.5 × 10^-13	2.5 × 10^-12
G12183-203K	-20	20	75	40	100	400	2000	1.5 × 10^11	4.5 × 10^11	7 × 10^-14	2 × 10^-13
G12183-205K		5	28	110	300	200	1000			1 × 10^-13	3 × 10^-13
G12183-210K		2	8	400	1000	55	280			2 × 10^-13	5.5 × 10^-13
G12183-220K		1	2.3	1400	3000	13	60			4 × 10^-13	1 × 10^-12
G12183-230K		0.5	1	3200	5000	5.5	28			6 × 10^-13	2 × 10^-12
G12183-210KA-03		2	4	500	1000	100	200	2 × 10^11	4 × 10^11	2 × 10^-13	4 × 10^-13