Optrans

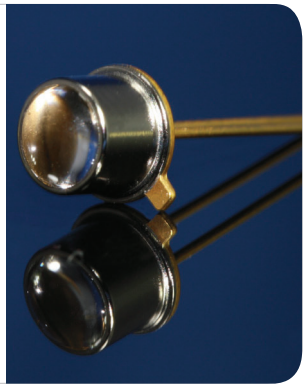
Preliminary

Visible Emitter

Product No: **VS409NK1**

Peak Emission Wavelength: 405nm

The 405nm visible emitter series is designed for applications requiring high output and precise optical / mechanical axis alignment. Custom package solutions and sorting are available.



FEATURES

> Hermetically Sealed TO-46
> High Output Power
> Narrow Beam Angle
> High Reliability

APPLICATIONS

> Color Sensor / Money Bill
> Paper Sensor / Money Bill
> Bar-code Reader

Absolute Maximum Ratings (Ta=25°C)

ITEMS	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	50	mA
Forward Current (Pulse)*1	IFP	0.5	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	160	mW
Operating Temperature Range	Topr	-20 ~ +85	°C
Storage Temperature Range	Tstg	-30 ~ +100	°C
Junction Temperature	Tj	100	°C
Lead Soldering Temperature*2	Tls	260	°C

Note*1: Tw=10μsec, T=10msec

Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=20mA	--	11.8	--	mW
Forward Voltage	VF	IF=20mA	--	3.1	3.2	V
Reverse Current	IR	VR=5V	--	--	100	μA
Peak Emission Wavelength	λp	IF=20mA	--	405	--	nm
Spectral Line Half Width	Δλ	IF=20mA	--	18	--	nm
Half Intensity Beam Angle	Θ	IF=20mA	--	±5	--	deg

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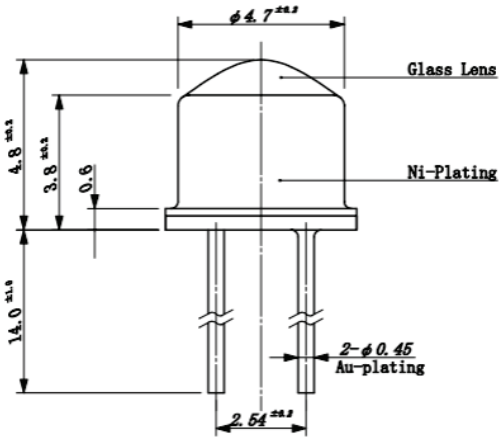
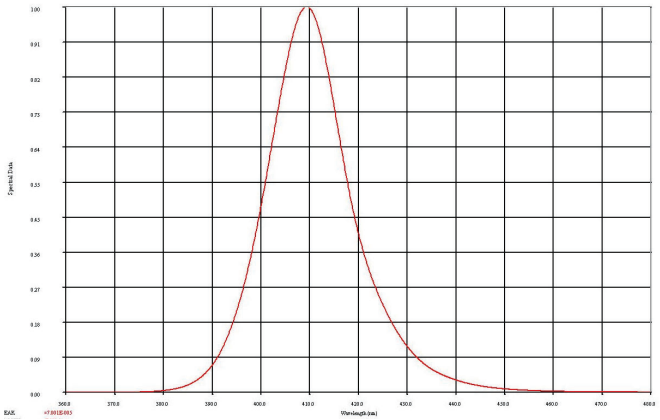
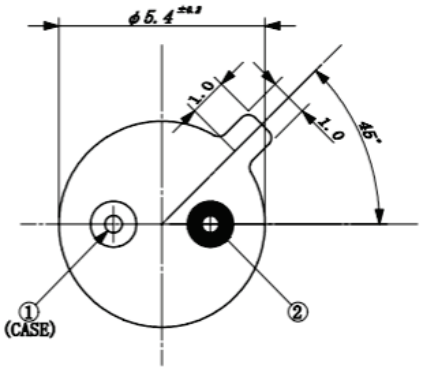


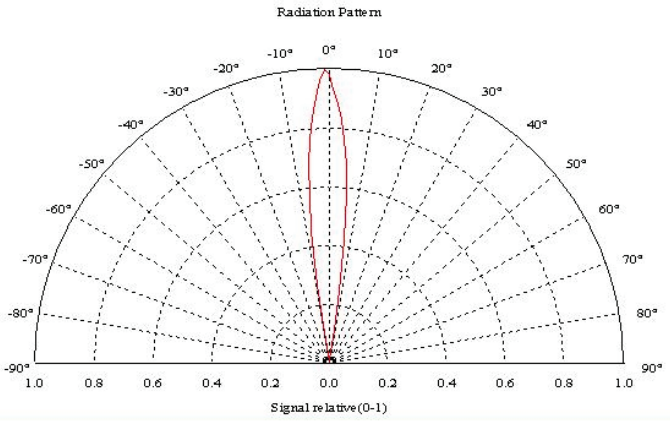
405nm Spectral Response



①Anode
②Cathode



Viewing Angle



Unit: mm, Tolerance: ±0.2

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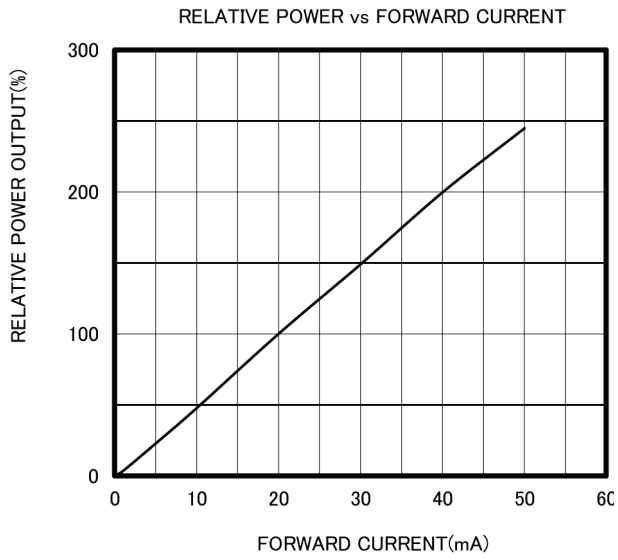

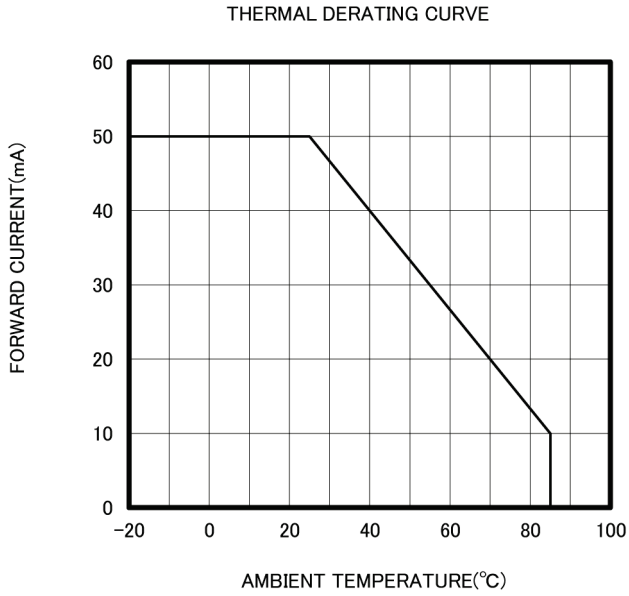

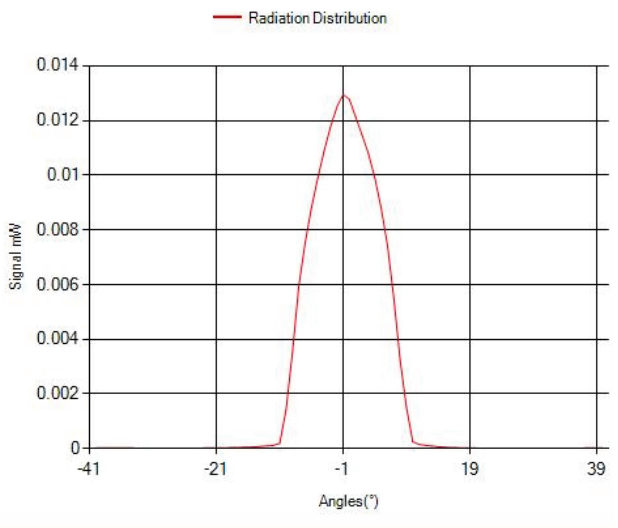

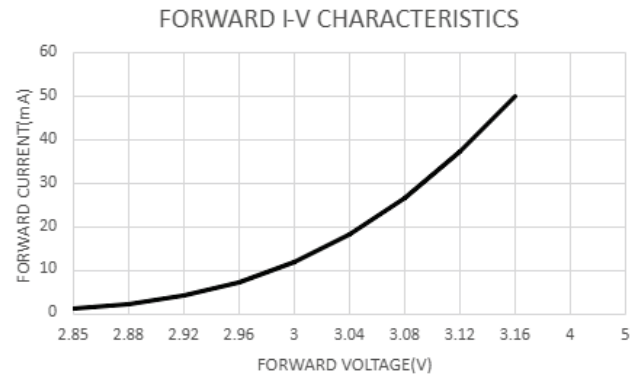

The information contained herein is subject to change without notice.

2026-06-17