

HIGH LUMINANCE MIRROR TYPE LED
AOP1-8505P3

Infrared LED with Higher Output Power

Ref.OPD080352

◆ **Description**

AOP1-8505P3 is a reflective mirror type LED with larger chip inside whose peak-wavelength is 850nm typical.

◆ **Die & Package**

Item	Value
Peak wavelength	Typical 850 nm
Chip size	500*500 μ m
Package	Reflective Mirror inside

◆ **Absolute Maximum Ratings**

Ta = 25°C

Parameter	Symbol	Max. Rating	Unit
Power Dissipation	P _D	300	mW
Forward Current (DC)	I _F	200	mA
Pulse Forward Current	I _{FRM}	2 ^{*1}	A
Reverse Voltage (DC)	V _R	5	V
Operating Temperature	T _{opr}	-20 ~ +75	°C
Storage Temperature	T _{stg}	-30 ~ +85	°C

*1 I_{FRM}: PW(Pulse width) \leq 0.55ms, duty=1/60◆ **Electro-optical Characteristics** (*Reference data from actual samples)

Ta = 25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward Voltage	V _F		1.5	1.7	V	I _F = 100mA
Reverse Current	I _R			10	μ A	V _R = 40V
Peak Wavelength	λ p		850		nm	I _F = 100mA
Spectrum Half Width	$\Delta\lambda$		42		nm	I _F = 100mA
Optical Output Power	P _O		50		mW	I _F = 100mA
Peak Luminous Intensity	I _E		340		mW/sr	I _F = 100mA
Half Angle	θ 1/2		\pm 7		Deg.	I _F = 100mA

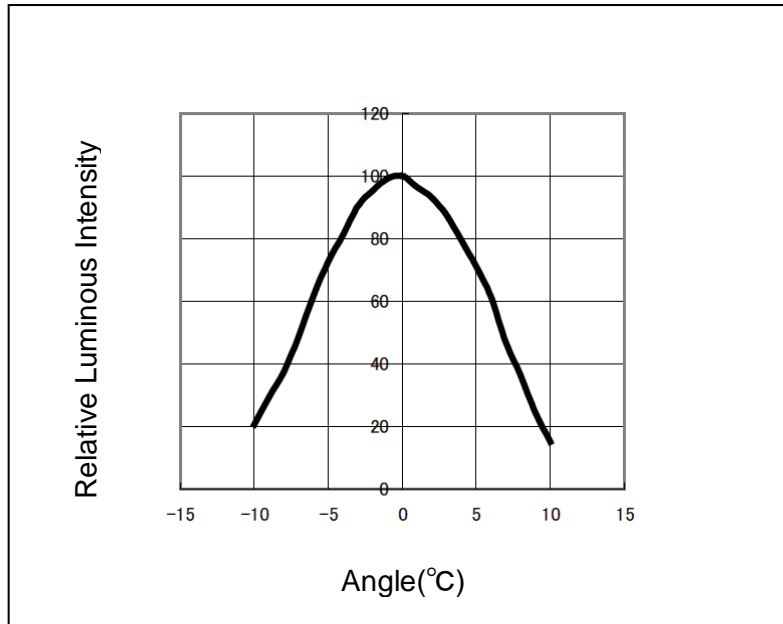
The data is subject to change without notice.

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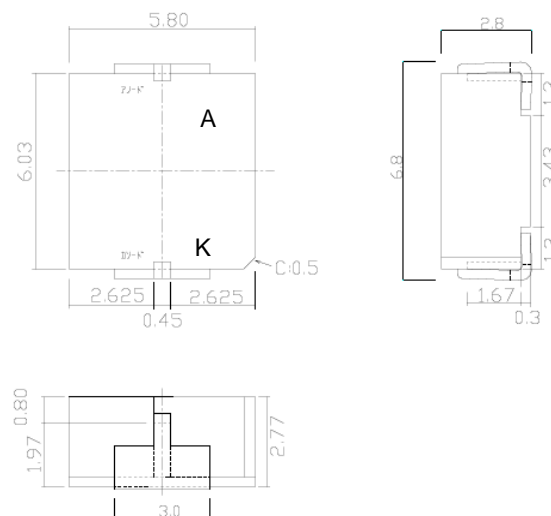
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◆ **Directivity** (*Reference data from actual samples)



Condition: Ta= 25°C Forward Current I_F=100mA

◆ **External Dimension** (Unit:mm)



A:Anode
K:Cathode

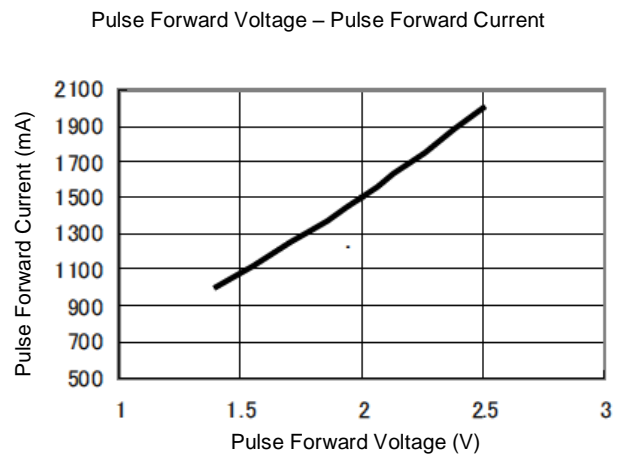
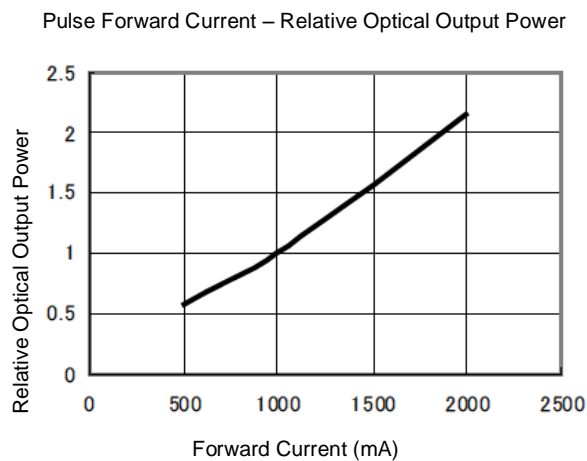
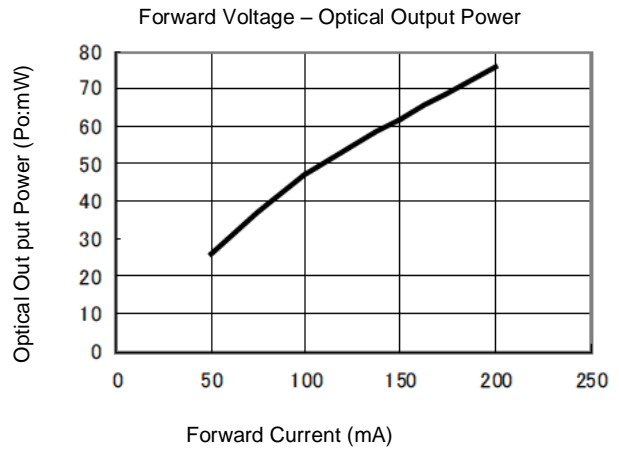
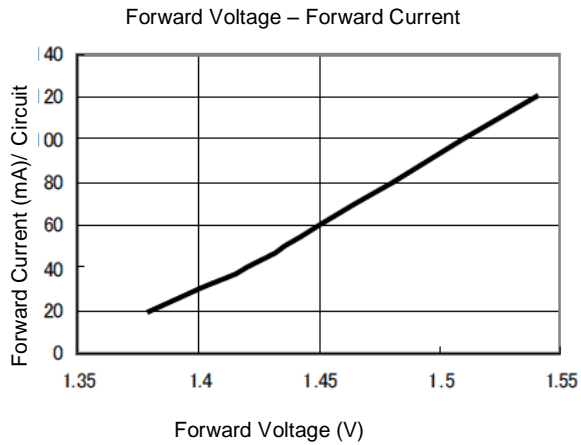
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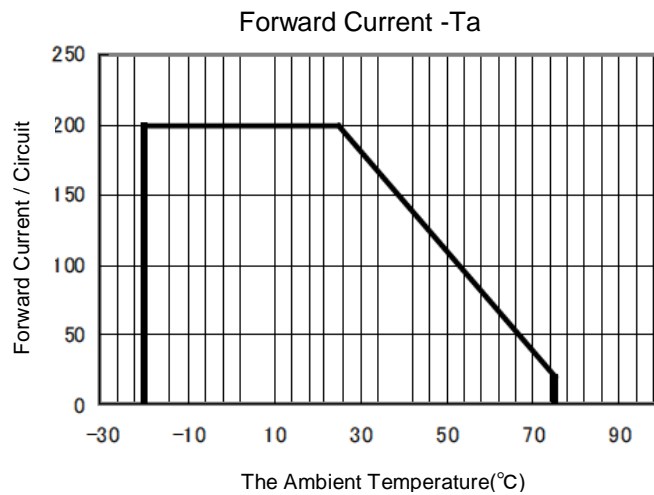
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◆ **Standard Primary Electrical, Optical Characteristics** (*Reference data from actual samples)



*Pulse Condition: P_w=0.55ms/Duty=1/60



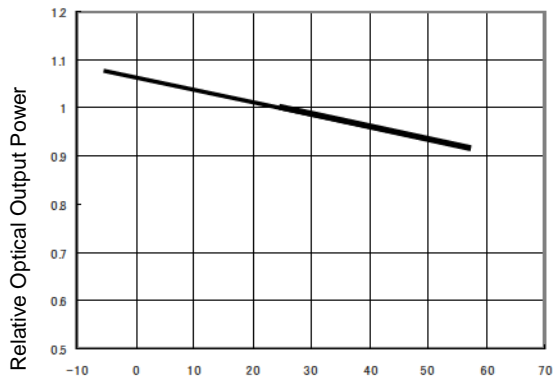
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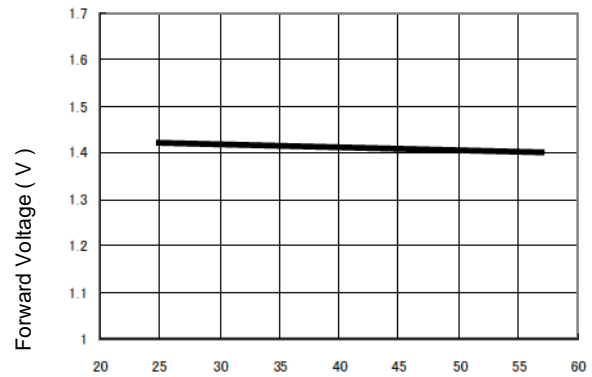
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Ta-Optical Output Power



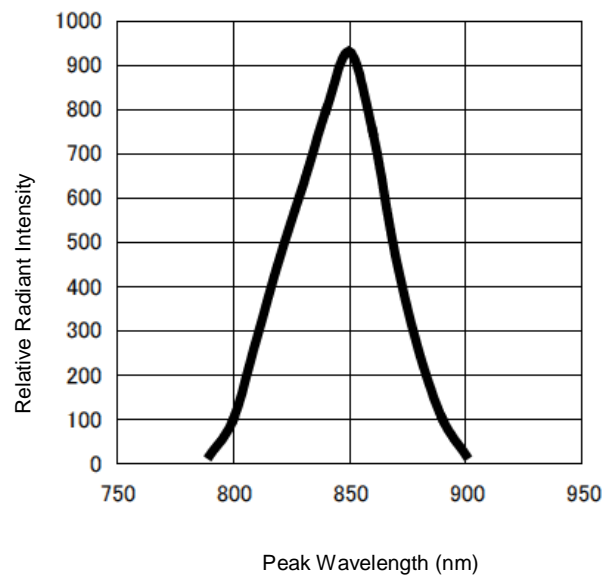
The Ambient Temperature (°C)

Ta-Forward Current



The Ambient Temperature(°C)

Spectral Distribution



- Revision: 1) 2009.01.14 Pulse Forward Voltage – Pulse Forward Current curve (P3/4)
2) 2010.06.29 Pulse Forward Voltage – Pulse Forward Current curve (P3/4)

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