

Infrared LED Lamp

φ3 Lamp Type LED

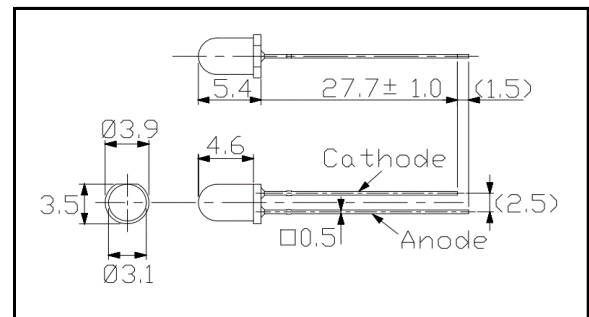
Data Sheet (Tentative)

Type No. : IR709JA-3A02-B7

1 Specifications

Product Name	Infrared LED Lamp
Chip Material	AlGaInP/Si
Peak Wavelength	700 nm typ.
Package	φ3mm Round
Resin Type	Colorless Transparent
Lead Type	Without Stopper Lead Frame Soldered

2 Outline Dimensions (Unit : mm)



3 Quality Specifications

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Maximum Rating	Unit
Power Dissipation	P_D	250	mW
Forward Current	I_F	100	mA
Pulse Forward Current	I_{FP}	500 (*1)	mA
Reverse Voltage	V_R	10	V
Thermal Resistance	R_{thj-a}	290	°C/W
Junction Temperature	T_j	100	°C
Operating Temperature	T_{OPR}	-30 ~ 85	°C
Storage Temperature	T_{STG}	-30 ~ 100	°C
Lead Soldering Temperature	T_{SOL}	260 (*2)	°C

*1 : Pulse width condition : 10 μsec , Duty 1%

*2 : Soldering Time condition : must be completed within 5sec or less

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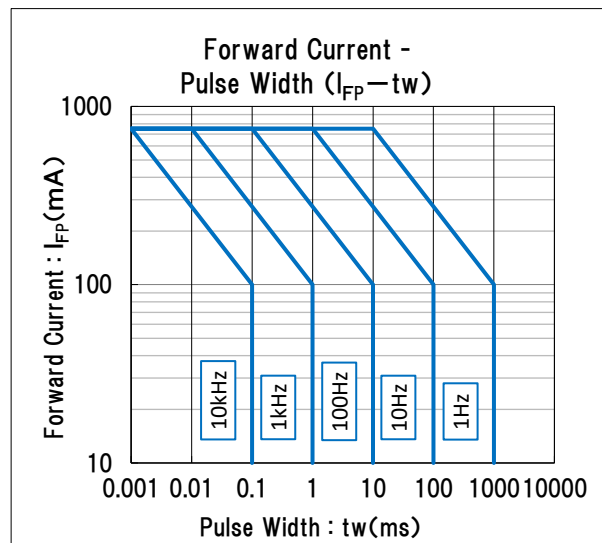
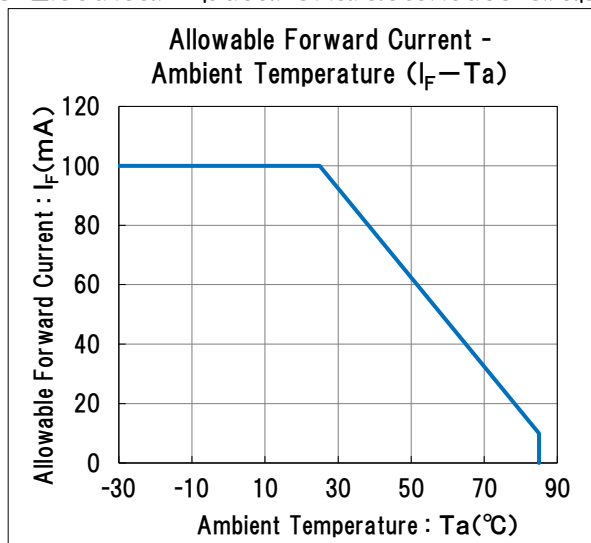
4 Electrical-Optical Characteristics (Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 50\text{mA}$		1.9	2.4	V
	V_{FP}	$I_{FP} = 500\text{mA}$		3.2		
Reverse Current	I_R	$V_R = 10\text{V}$			5	μA
Radiated Power (*3)	Φ_E	$I_F = 50\text{mA}$		15		mW
		$I_{FP} = 500\text{mA}$		210		
Radiant Intensity (*4)	I_E	$I_F = 50\text{mA}$	30	70		mW/sr
		$I_{FP} = 500\text{mA}$		730		
Peak Wavelength	λ_P	$I_F = 50\text{mA}$	695		705	nm
Half Width	$\Delta\lambda$	$I_F = 50\text{mA}$		28		nm
Directional Angle	θ	$2\theta 1/2$		10		°
Rise Time	t_r	$I_F = 50\text{mA}$		16		ns
Fall Time	t_f	$I_F = 50\text{mA}$		18		ns

*3 : Radiated Power is measured by S3584-08

*4 : Radiant Intensity is measured by CIE127-2007 Condition B.

5 Electrical-Optical Characteristics Graphs

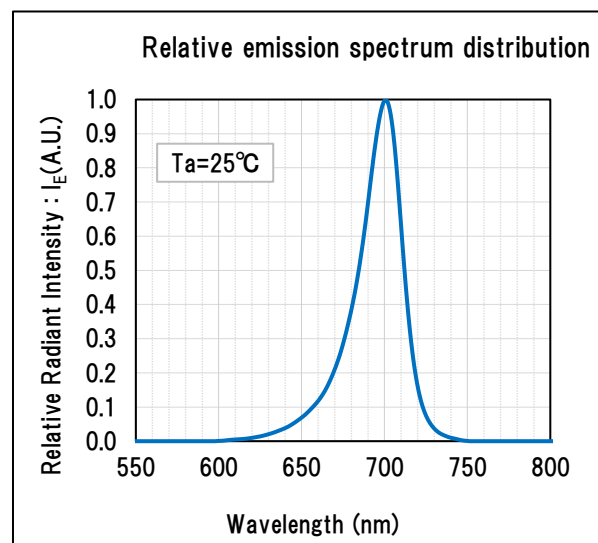
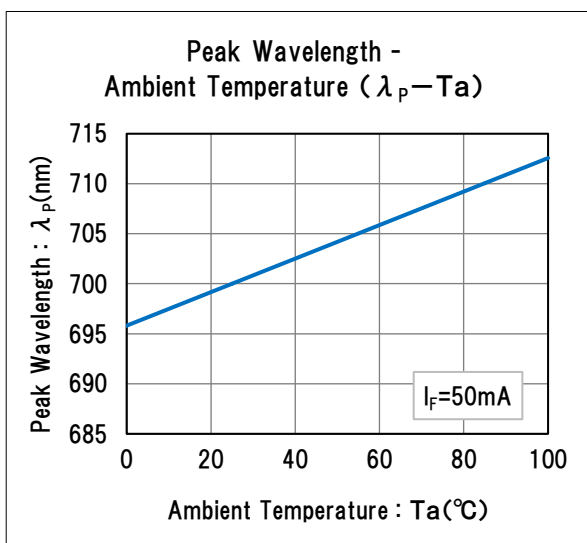
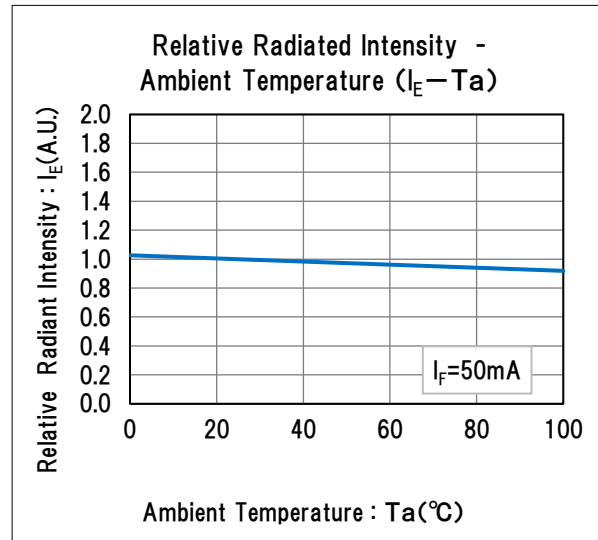
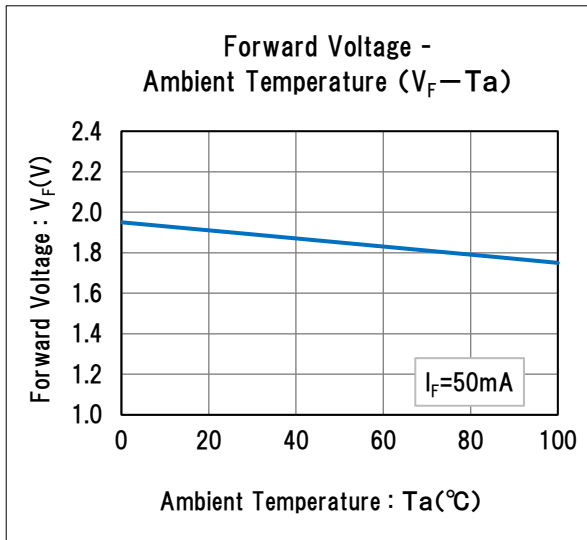
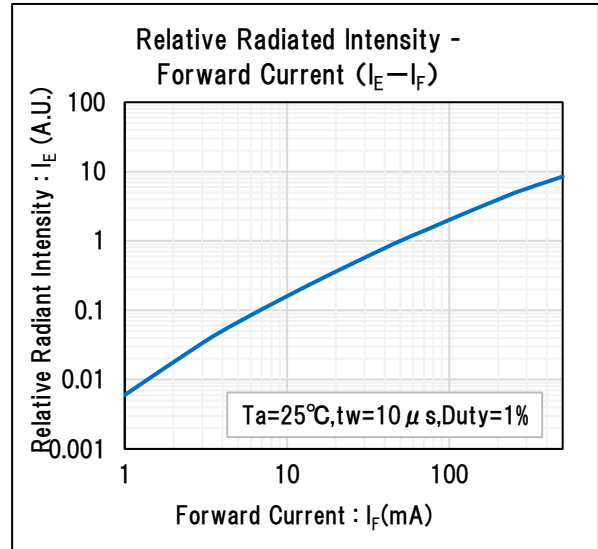
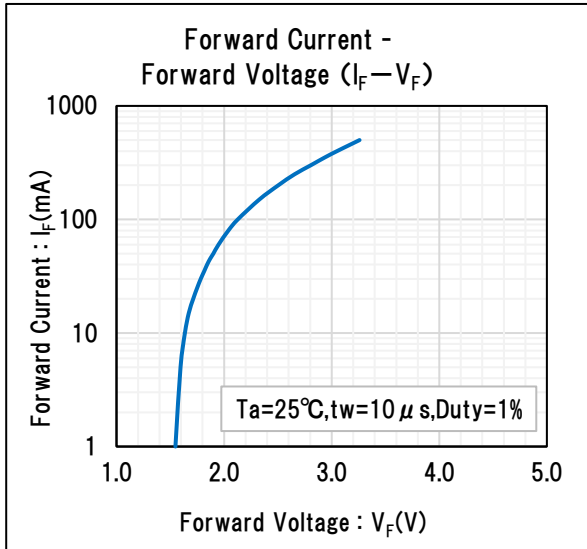


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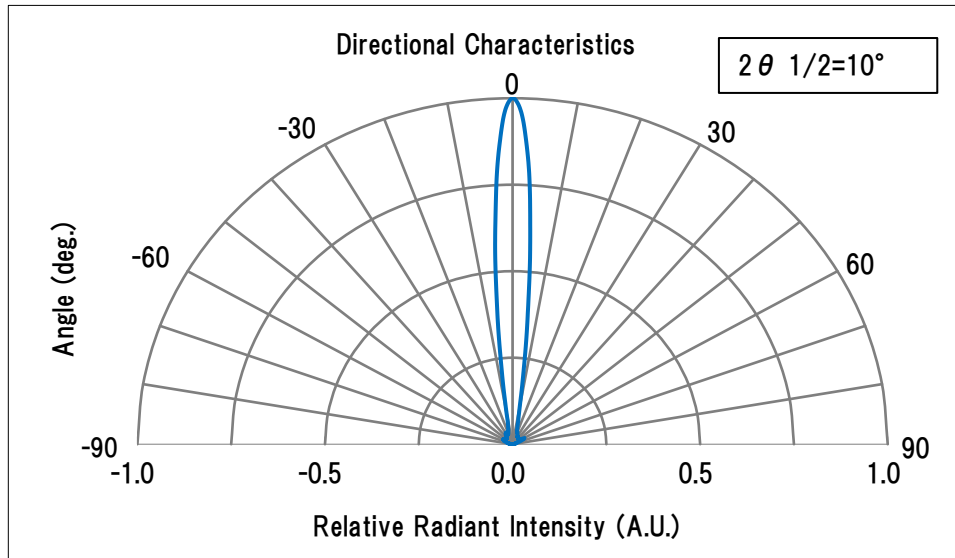
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6 Directional Characteristics Drawing

**Disclaimer :**

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

Transport equipment that require high reliability and safety, in the case of your used, for example, disaster prevention and security equipment and various safety devices, we ask especially your attention to the safety design of the entire equipment.

Or threatening failure or malfunction of the people directly, such as when it is likely to cause harm to the human body, the special applications that require high reliability and safety (for aerospace, combustion equipment, life-support equipment, etc.) please do not use.

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