Marubeni America Corporation

MOLD LED LAMP L1070series **Lead(Pb)Free Product-RoHS Compliant**

L1070-_ _ Infrared LED Lamp

This series of L1070-_ _ is an InGaAsP LED mounted on a lead frame and encapsulated in various types of epoxy lens which offer different design settings.

On forward bias, it emits a high power radiation of typical 2.5mW with a peak wavelength at 1070nm.

Specifications

1. Chip material InGaAsP
2. Peak wavelength 1070nm
3. Resin Material Epoxy resin
4. Solder Lead free

Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	140	mW	Ta=25°C
Forward Current	I_F	100	mA	Ta=25°C
Pulse Forward Current	I_{FP}	1000	mA	Ta=25°C
Reverse Voltage	V_R	5	V	Ta=25°C
Operating Temperature	T_{OPR}	-30 ~ +85	°C	
Storage Temperature	T_{STG}	-40 ~ +100	°C	
Soldering Temperature	T_{SOL}	265	°C	

Electro-Optical Characteristics (Ta=25°C)

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	IF=50mA		1.1	1.5	V
Reverse Current	I_R	VR=5V			10	uA
Radiated Power	P_O	IF=50mA	1.3	2.5		mW
Peak Wavelength	λ_P	IF=50mA	1020	1070	1120	nm
Half Width	$\Delta\lambda$	IF=50mA		50		nm
Rise Time	tr	IF=50mA		10		ns
Fall Time	tf	IF=50mA		10		ns

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Characteristics of Radiant Intensity (Ta=25°C)

Type	Viewing Half Angle	Radiant Intensity I_F=50mA Unit : mW/sr			Outer Dimension	Dimension Figure
		Minimum	Typical	Maximum		
L1070-01					Φ5	1
L1070-02					Φ5	2
L1070-03	±10°		14		Φ5	3
L1070-04					Φ5	4
L1070-05					Φ5	5
L1070-06	±7°		30		Φ5	6
L1070-09					Φ5 Oval	7
L1070-46					Φ5	8
L1070-41					Φ4	9
L1070-42					Φ4	10
L1070-31					Φ3	11
L1070-33	±18°		10		Φ3	12
L1070-34					Φ3	13
L1070-36	±33°		3		Φ3	14

Radiant Power is measured by G8370-85

Brightness is measured by Tektronix J-16

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Outer Dimension of LED Lamp

Figure-1 Φ5Mold (Type01)

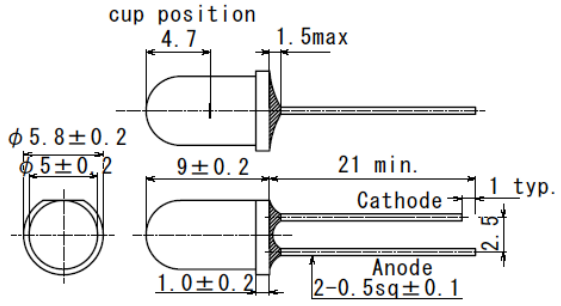


Figure-2 Φ5Mold (Type02)

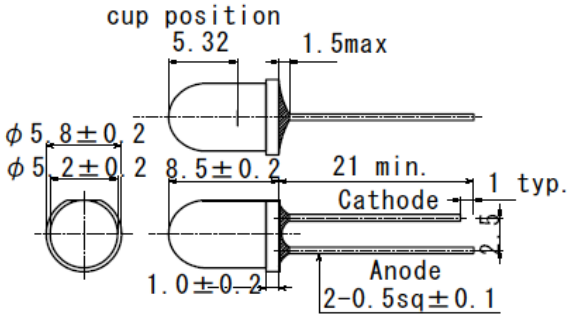


Figure-3 Φ5Mold (Type03)

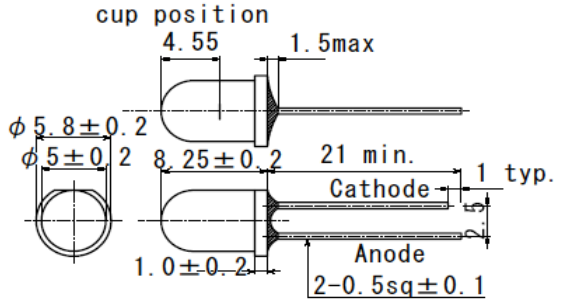


Figure-4 Φ5Mold (Type04)

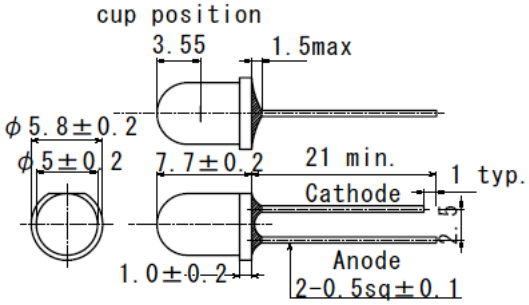


Figure-5 Φ5Mold (Type05)

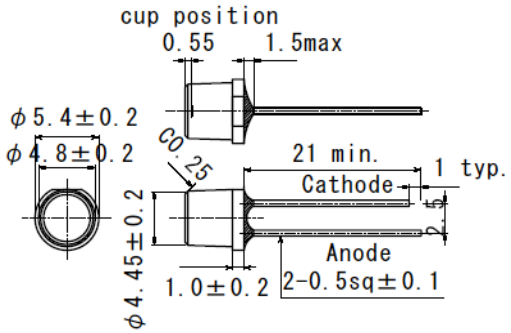


Figure-6 Φ5Mold (Type06)

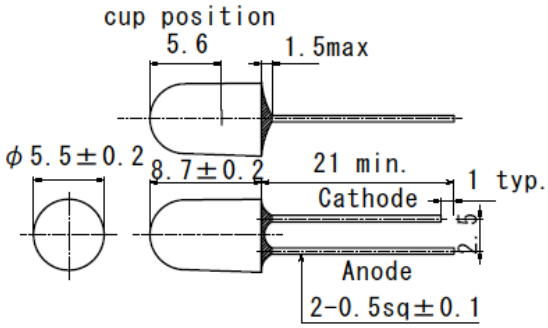


Figure-7 Φ5Mold (Type09)

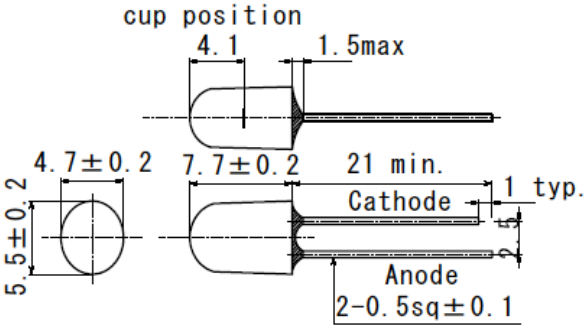


Figure-8 Φ5Mold (Type46)

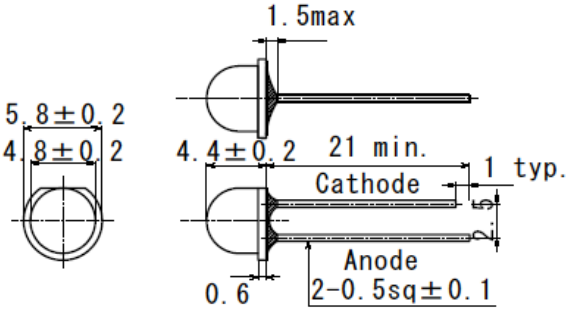


Figure-9 Φ4Mold (Type41)

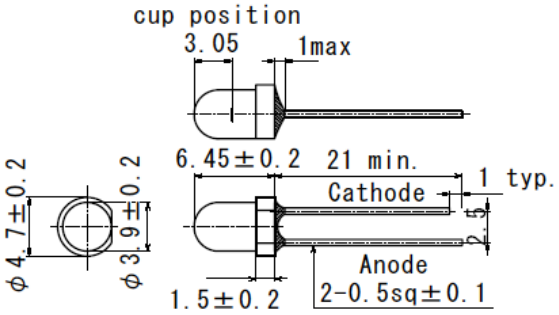
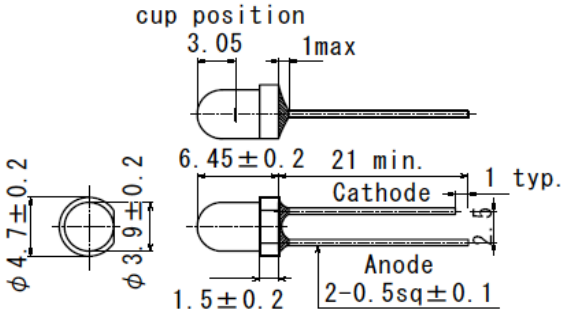


Figure-10 Φ4Mold (Type42)



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Outer Dimension of LED Lamp

Figure-11 Φ3Mold (Type31)

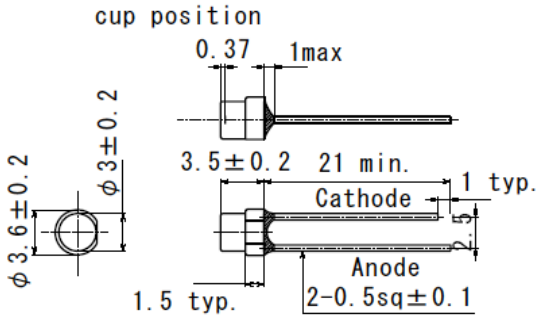

Figure-12 Φ3Mold (Type33)

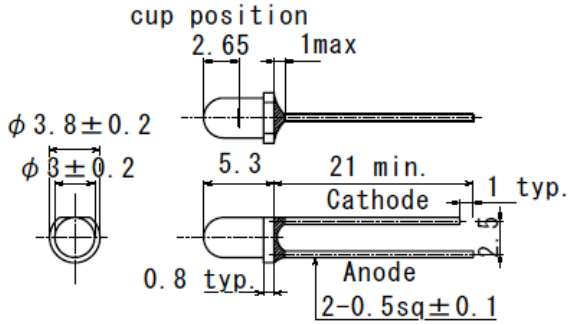

Figure-13 Φ3Mold (Type34)

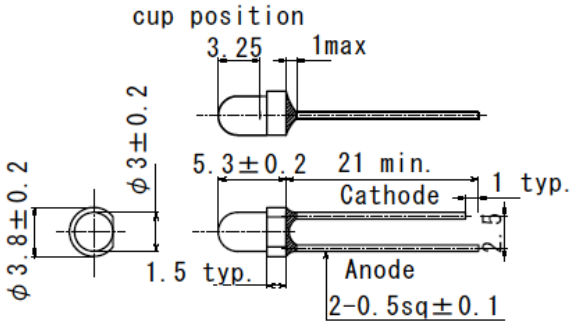

Figure-14 Φ3Mold (Type36)

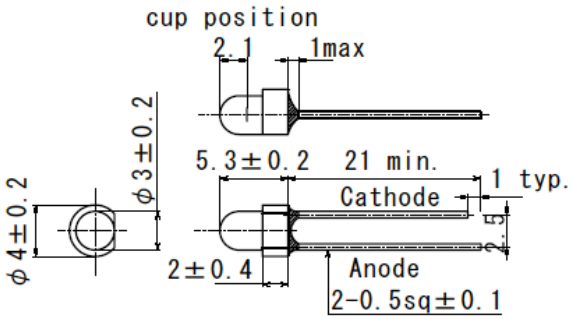

Figure-15

Figure-16

Figure-17

Figure-18

Figure-19

Figure-20

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The Viewing half angle

Figure-1 Φ5Mold (Type01)

Figure-2 Φ5Mold (Type02)

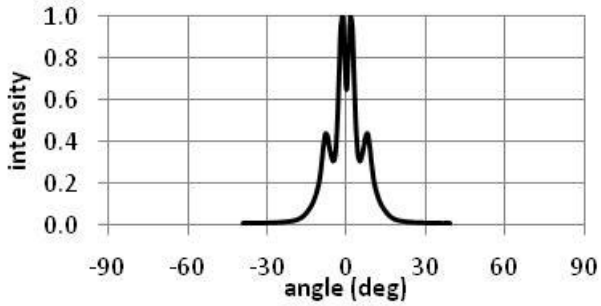

Figure-3 Φ5Mold (Type03)

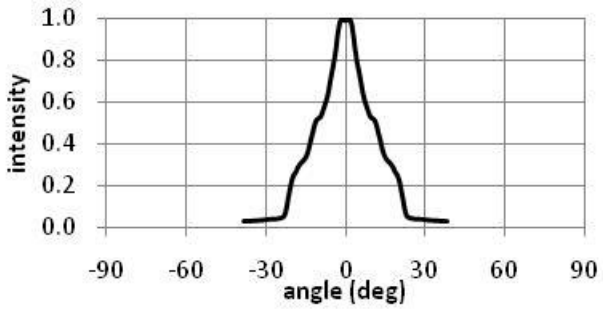

Figure-4 Φ5Mold (Type04)

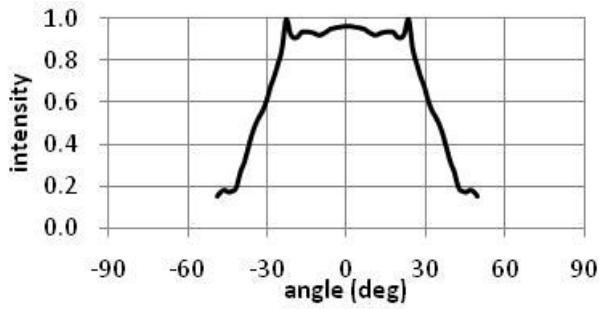

Figure-5 Φ5Mold (Type05)

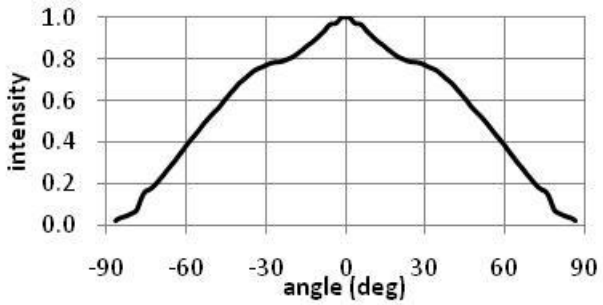

Figure-6 Φ5Mold (Type06)

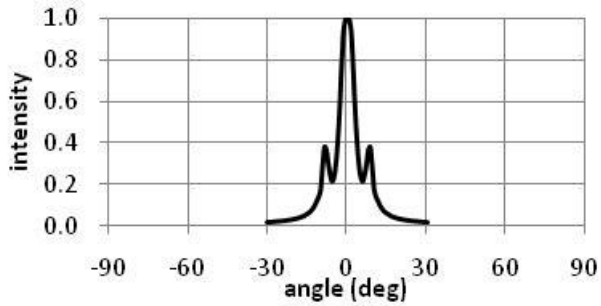

Figure-7 Φ5Mold (Type09)

Figure-8 Φ5Mold (Type46)

Figure-9 Φ4Mold (Type41)

Figure-10 Φ4Mold (Type42)

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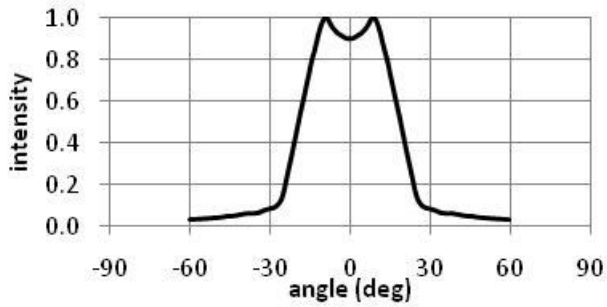
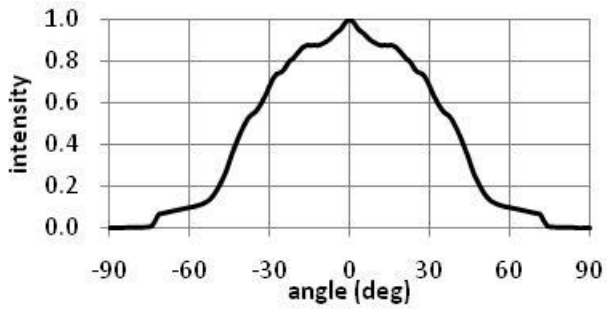
The Viewing half angle

Figure-11 Φ3Mold (Type31)	**Figure-12 Φ3Mold (Type33)** 
Figure-13 Φ3Mold (Type34)	**Figure-14 Φ3Mold (Type36)** 
Figure-15	**Figure-16**
Figure-17	**Figure-18**
Figure-19	**Figure-20**

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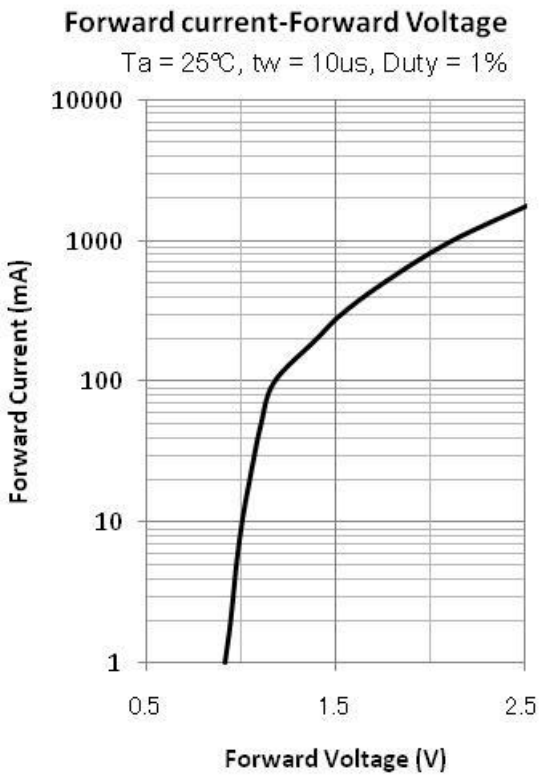
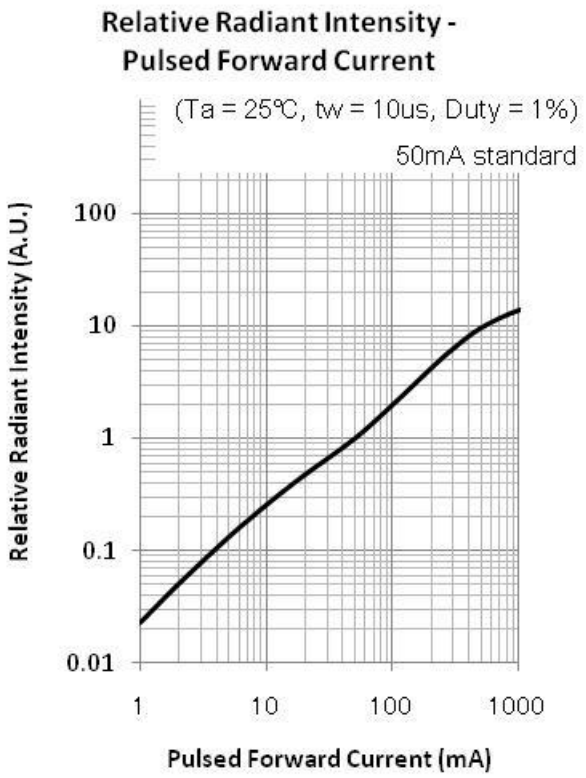
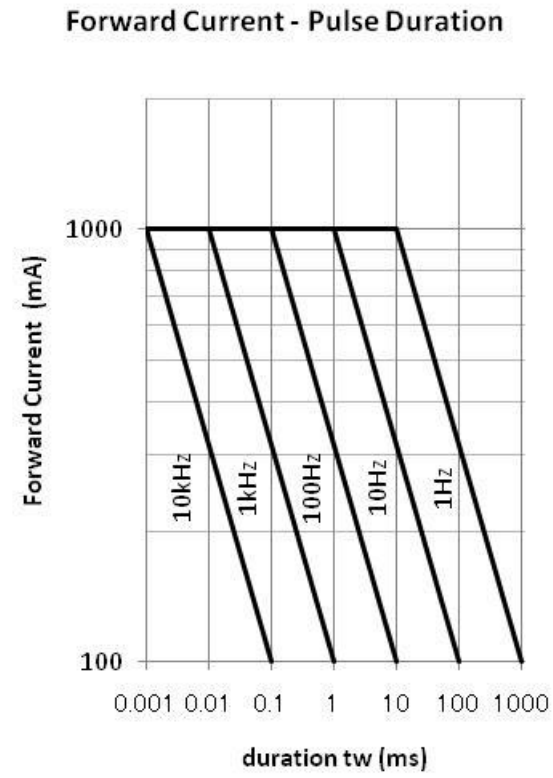
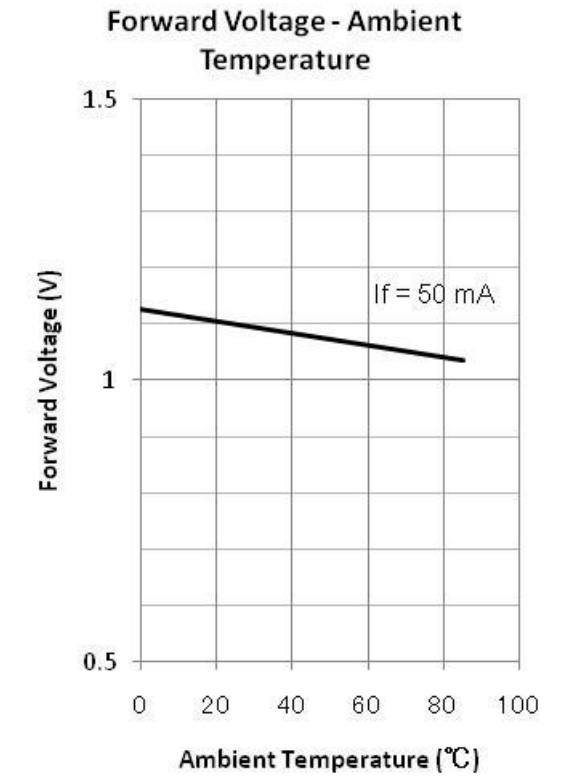
L1070 –series









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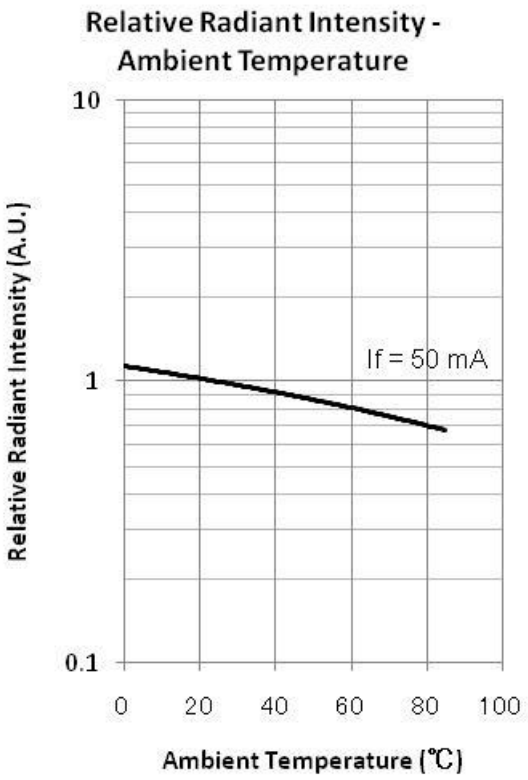

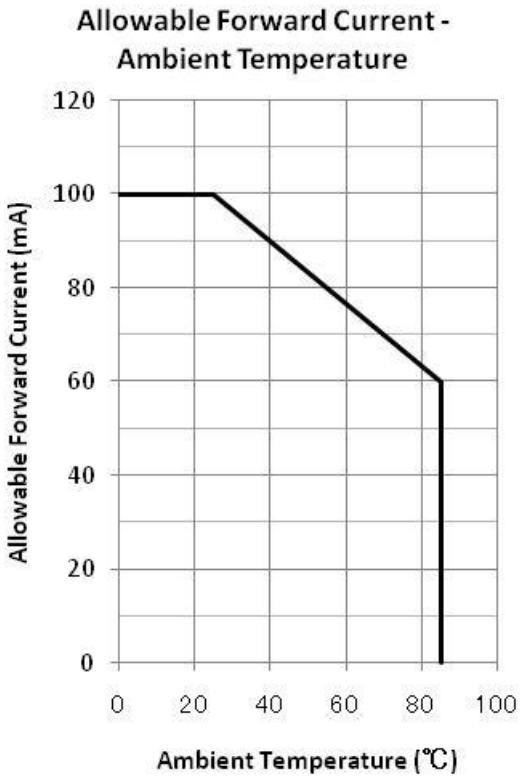

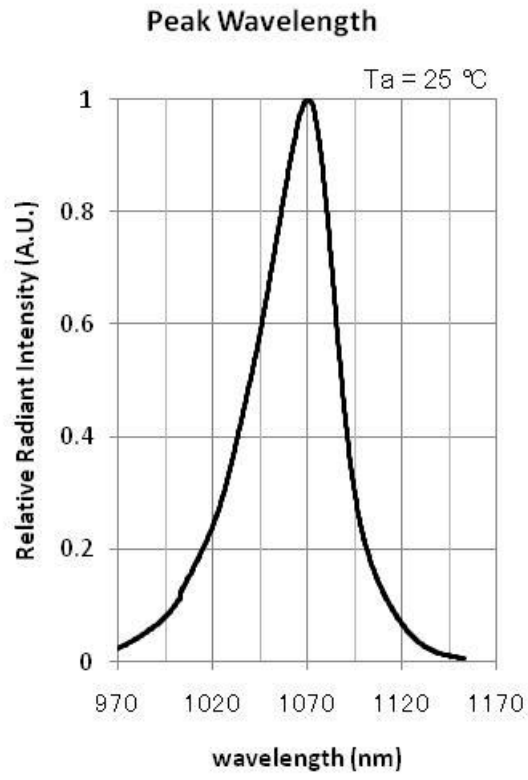

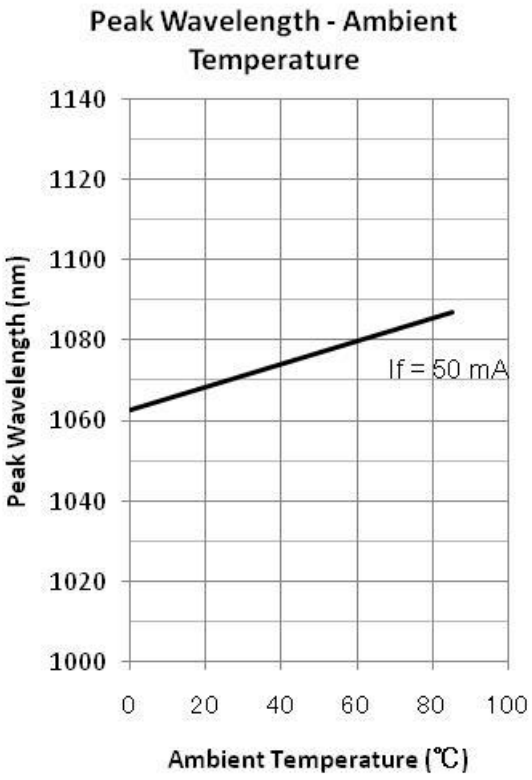

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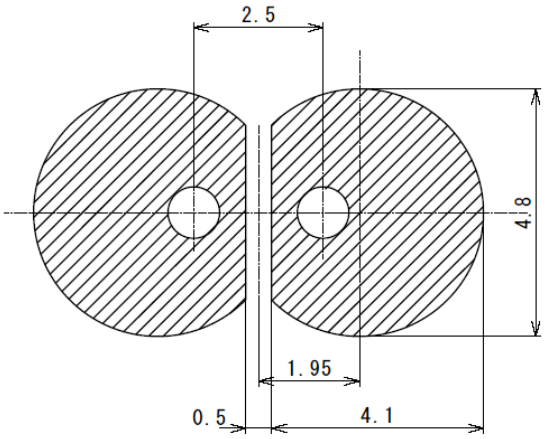
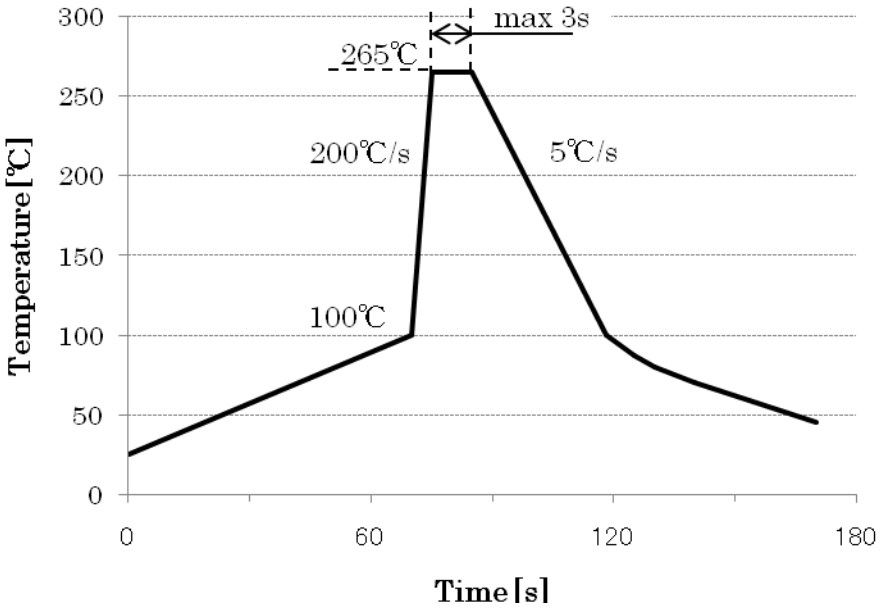
Recommended Land Layout (unit: mm)



Soldering Conditions



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