



Lead (Pb) Free Product – RoHS Compliant

LED700-series

Infrared LED Lamp

This series of LED700-xxAU is an AlGaAs LED mounted on a lead frame and encapsulated in various types of epoxy lens which offers different design settings.

On forward bias, it emits a high power radiation of typical 13mW with a peak wavelength at 700nm.

• Specifications

- 1) Chip material AlGaAs
- 2) Peak wavelength 700nm
- 3) Package Epoxy resin
- 4) Solder Lead free



• Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P _D	170	mW	T _a =25°C
Forward Current	I _F	75	mA	T _a =25°C
Pulse Forward Current	I _{FP}	500	mA	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =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 [T_a=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =50mA		2.0	2.3	V
Reverse Current	I _R	V _R =5V			10	µA
Total Radiated Power	P _O	I _F =50mA	9.0	13.0		mW
Peak Wavelength	λ _P	I _F =50mA		700		nm
Half Width	Δλ	I _F =50mA		30		nm
Rise Time	t _r	I _F =50mA		50		ns
Fall Time	t _f	I _F =50mA		25		ns



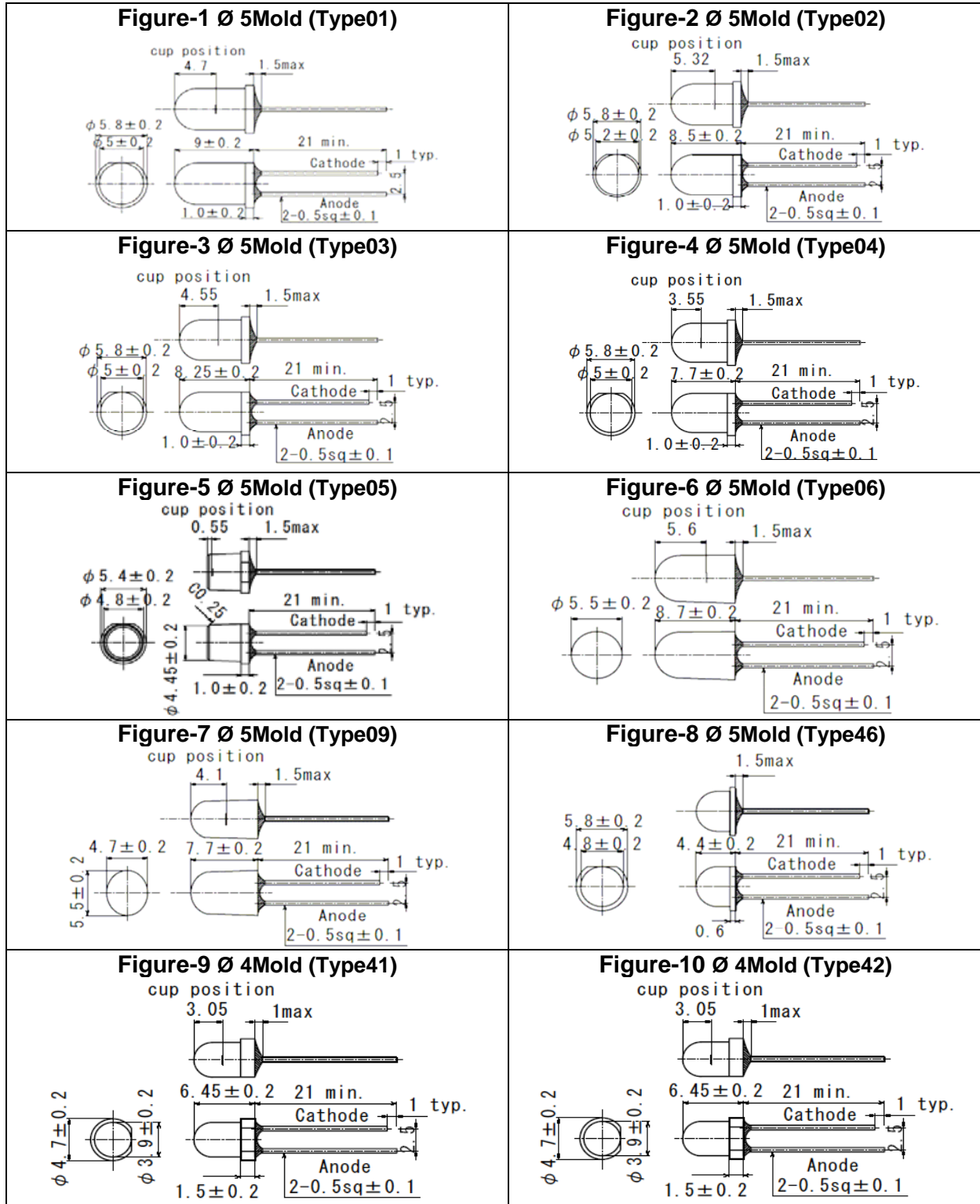
• **Characteristics of Radiant Intensity [Ta=25°C]**

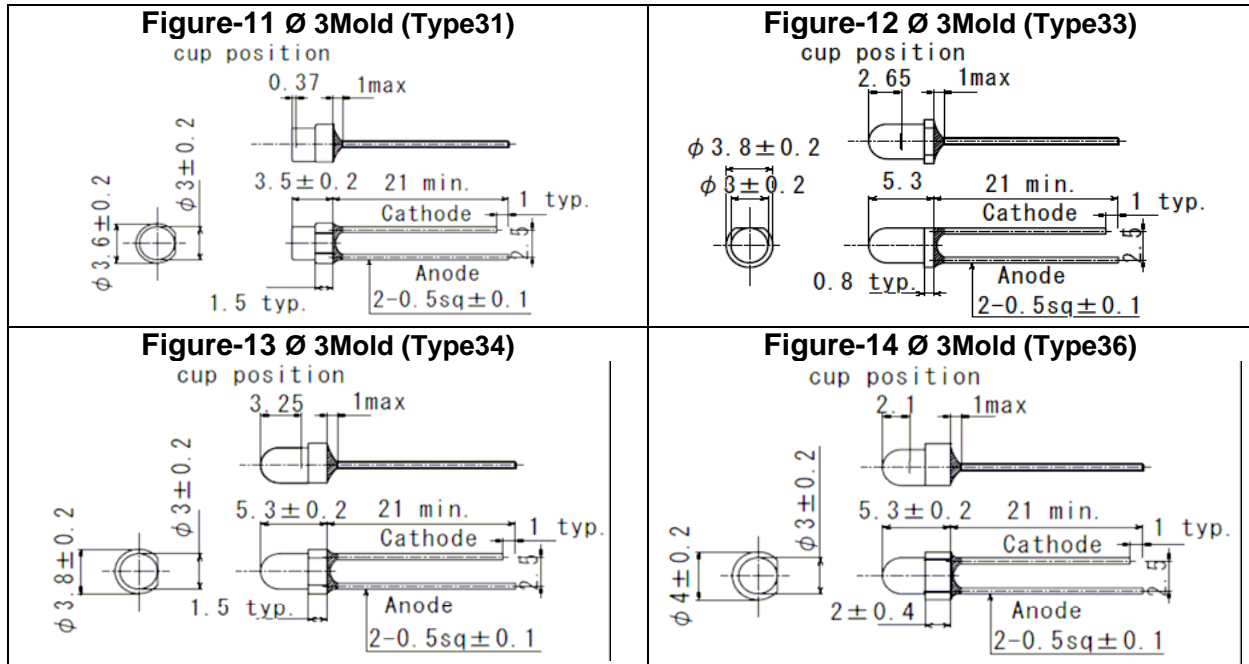
Type	Viewing Half Angle	Radiant Intensity IF= 50mA [mW/sr]			Outer Dimension	Dimension Figure
		Minimum	Typical	Maximum		
LED700-01AU	± 10°		60		Ø 5	1
LED700-02AU	± 7°		90		Ø 5	2
LED700-03AU	± 10°		60		Ø 5	3
LED700-04AU	± 20°		30		Ø 5	4
LED700-05AU	± 40°		6		Ø 5	5
LED700-06AU	± 7°		80		Ø 5	6
LED700-09AU	± 25° (Long) ± 15° (Short)		40		Ø 5 Oval	7
LED700-46AU					Ø 5	8
LED700-41AU	± 16°				Ø 4	9
LED700-42AU	± 23°				Ø 4	10
LED700-31AU					Ø 3	11
LED700-33AU	± 18°		30		Ø 3	12
LED700-34AU					Ø 3	13
LED700-36AU	± 33°		15		Ø 3	14

- ▶ Total Radiant Power is measured by Photodyne #500.
- ▶ Brightness is measured by Tektronix J-16.



• **Outer Dimension of LED Lamp**







• The Viewing half angle

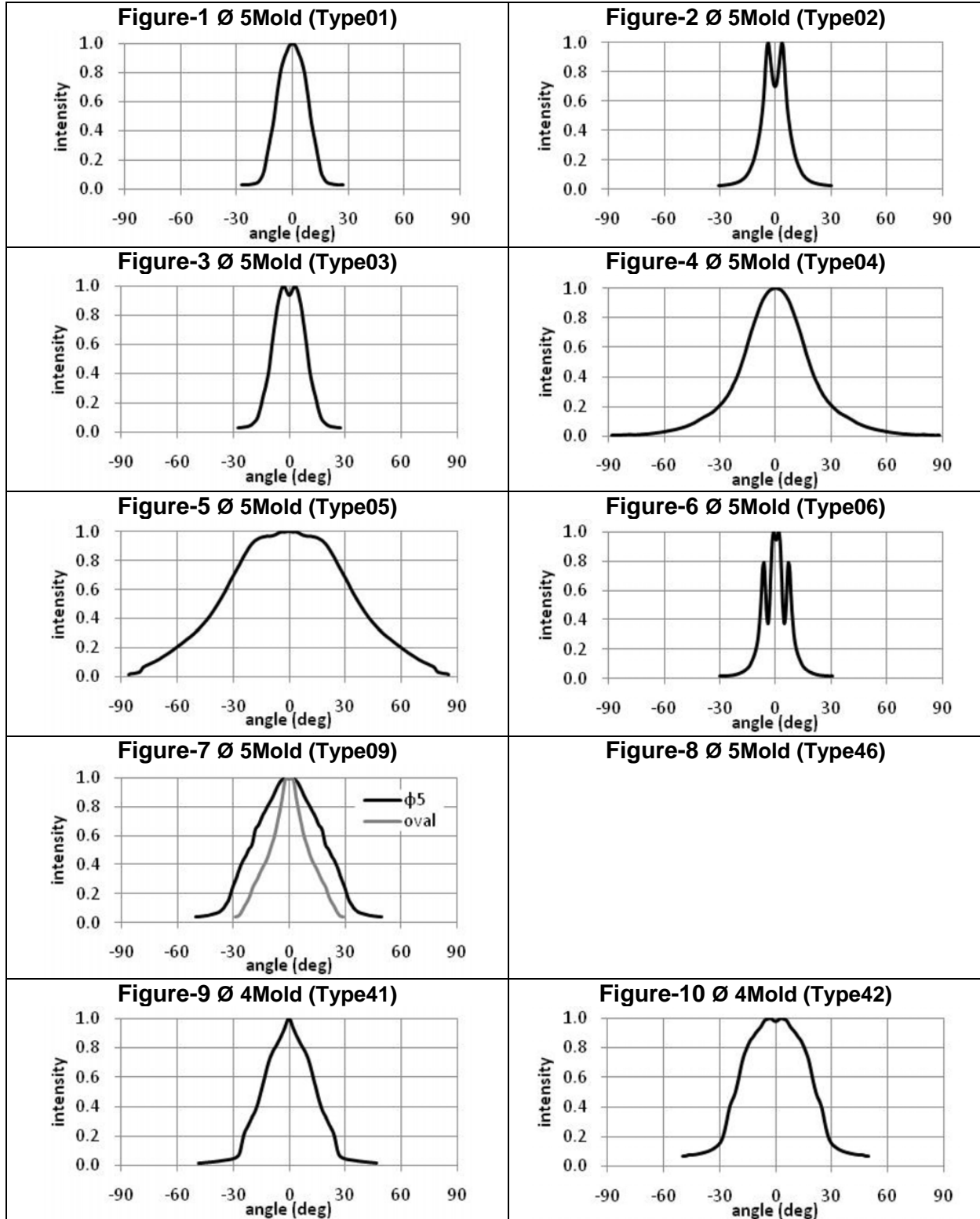




Figure-11 Ø 3Mold (Type31)

Figure-12 Ø 3Mold (Type33)

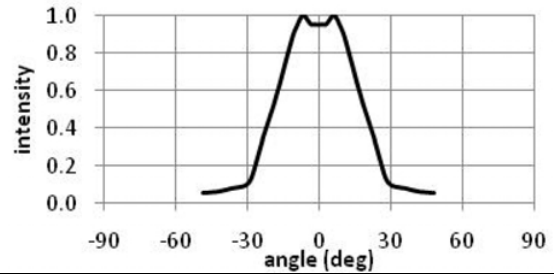
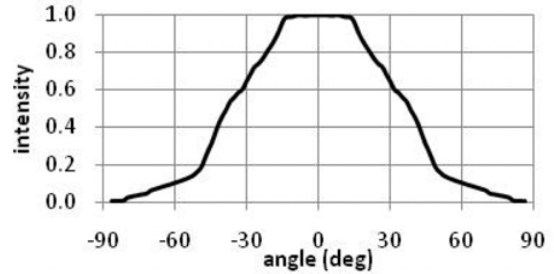


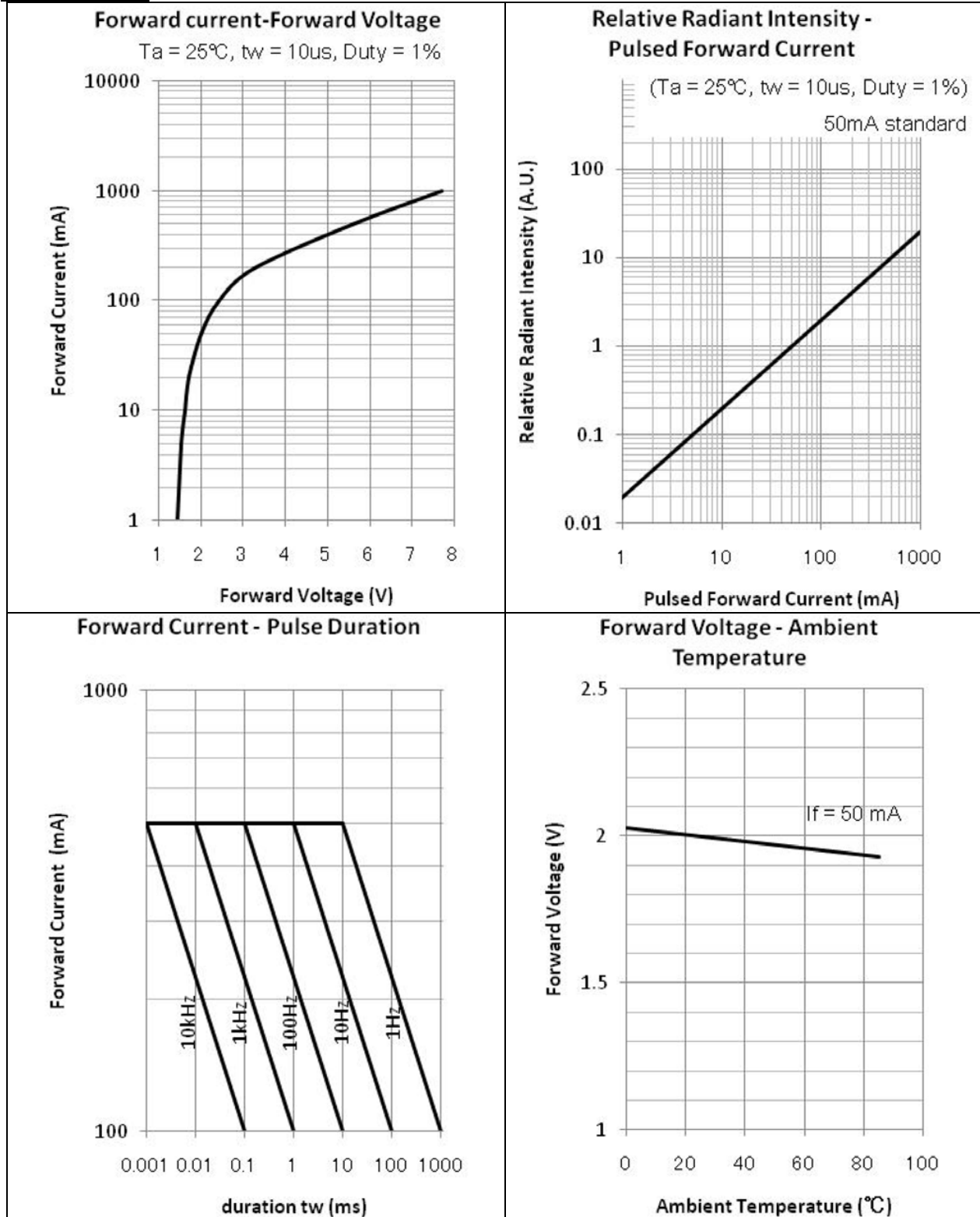
Figure-13 Ø 3Mold (Type34)

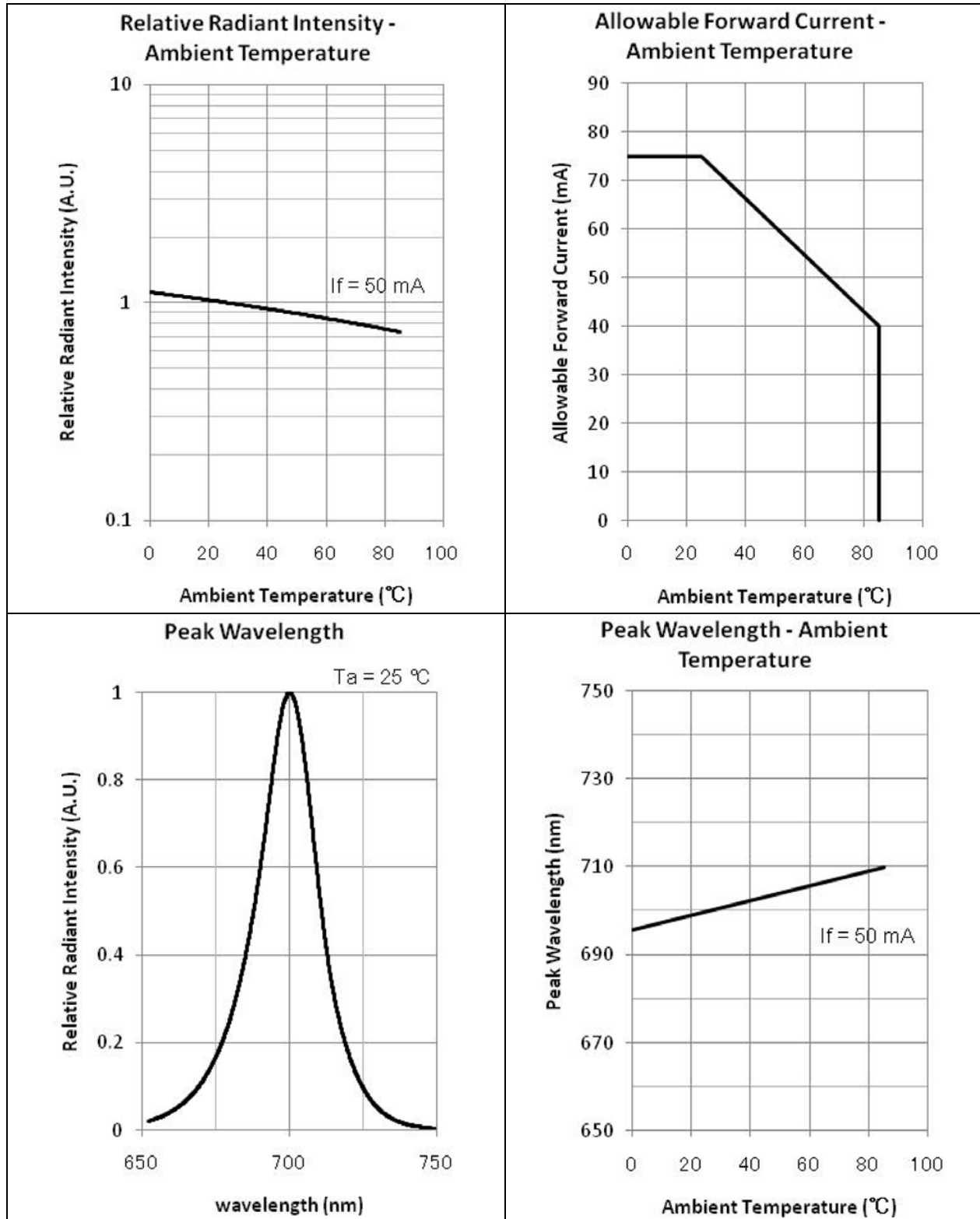
Figure-14 Ø 3Mold (Type36)





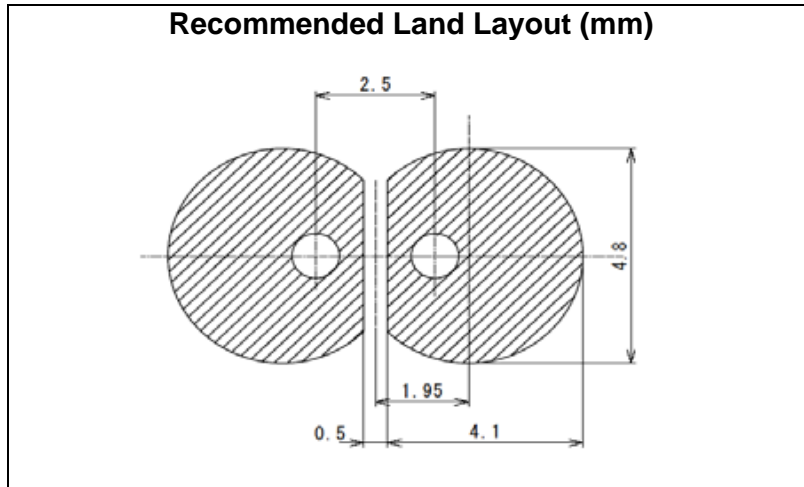
• **LED450 - serie**







Recommended Land Layout (mm)



Soldering Conditions

