

L660N-__ __

High Bright Red LED Lamp

This series of L660N-__ __ is an AlGaInP LED mounted on a lead frame with a clear epoxy lens. On forward bias, it emits a band of visible light that peaks 660nm.

Specifications

- | | |
|--------------------|-------------|
| 1. Chip material | AlGaInP |
| 2. Peak wavelength | 660nm |
| 3. Resin Material | Epoxy resin |
| 4. Solder | Lead free |



Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	120	mW	$T_a=25^{\circ}\text{C}$
Forward Current	I_F	50	mA	$T_a=25^{\circ}\text{C}$
Pulse Forward Current	I_{FP}	200	mA	$T_a=25^{\circ}\text{C}$
Reverse Voltage	V_R	5	V	$T_a=25^{\circ}\text{C}$
Junction Temperature	T_J	100	$^{\circ}\text{C}$	
Thermal Resistance	R_{thjp}	190	K/W	
Operating Temperature	T_{OPR}	-30 ~ +85	$^{\circ}\text{C}$	$T_a=25^{\circ}\text{C}$
Storage Temperature	T_{STG}	-40 ~ +100	$^{\circ}\text{C}$	
Soldering Temperature	T_{SOL}	265	$^{\circ}\text{C}$	

Electro-Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	$I_F=20\text{mA}$		2.1	2.3	V
Reverse Current	I_R	$V_R=5\text{V}$			10	μA
Radiated Power	P_O	$I_F=20\text{mA}$	8	15		mW
Peak Wavelength	λ_P	$I_F=20\text{mA}$	650	660	670	nm
Half Width	$\Delta\lambda$	$I_F=20\text{mA}$		18		nm

Characteristics of Radiant Intensity (Ta=25°C)

Type	Viewing Half Angle	Brightness I _F =20mA Unit : mcd			Outer Dimension	Dimension Figure
		Minimum	Typical	Maximum		
L660N-01	±10°		2800		Φ5	1
L660N-02	±3°		15000		Φ5	2
L660N-03	±12°		2400		Φ5	3
L660N-04	±30°		800		Φ5	4
L660N-05	±45°		240		Φ5	5
L660N-06	±3°		13000		Φ5	6
L660N-09					Φ5 Oval	7
L660N-46					Φ5	8
L660N-41					Φ4	9
L660N-42					Φ4	10
L660N-31-2C					Φ3	11
L660N-33	±24°		1400		Φ3	12
L660N-34	±8°		3600		Φ3	13
L660N-36	±50°		550		Φ3	14

Radiated Power is measured by S3584-08.
 Brightness is measured by Tektronix J-16

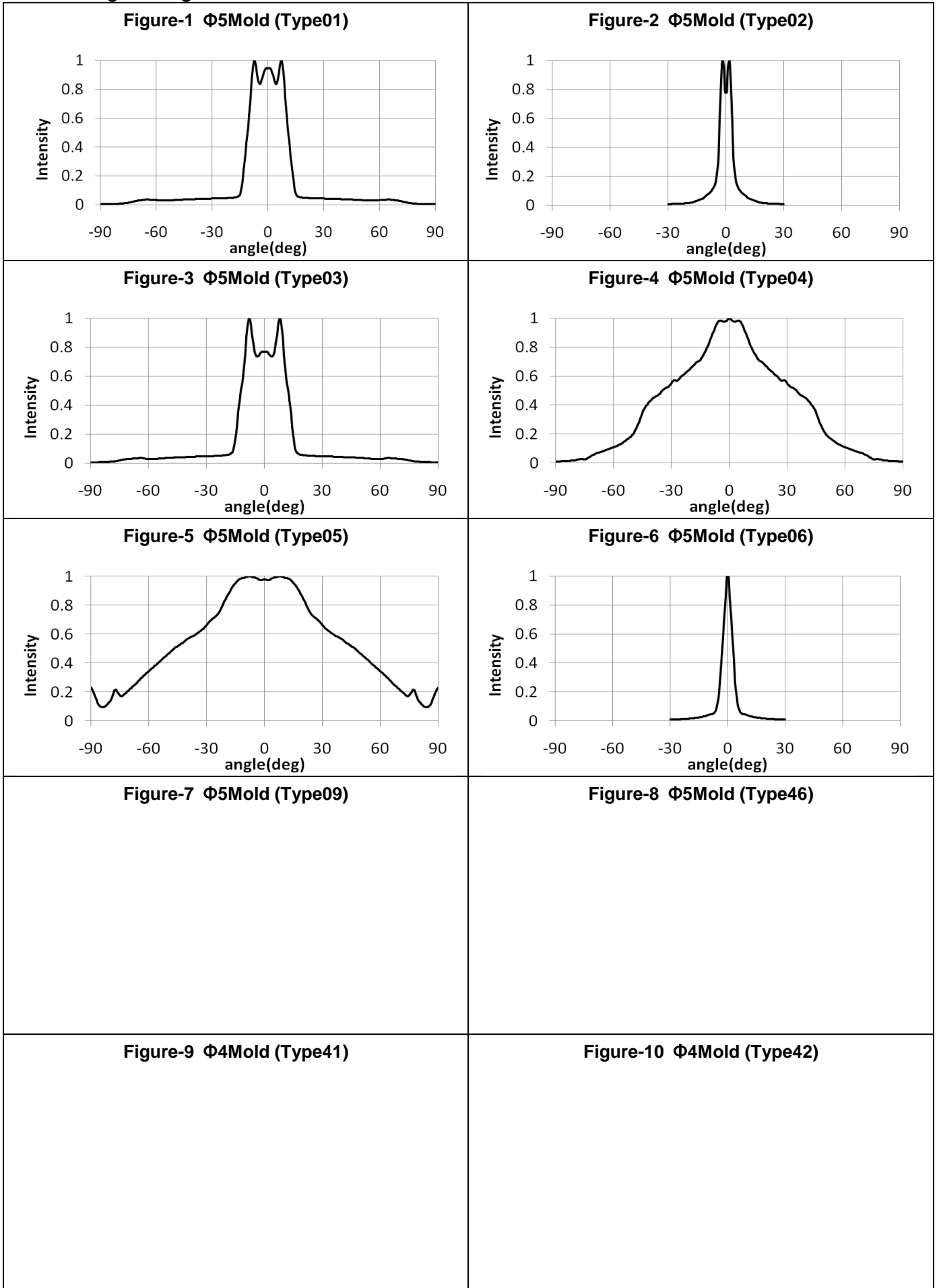
Outer Dimension of LED Lamp

<p>Figure-1 Φ5Mold (Type01)</p>	<p>Figure-2 Φ5Mold (Type02)</p>
<p>Figure-3 Φ5Mold (Type03)</p>	<p>Figure-4 Φ5Mold (Type04)</p>
<p>Figure-5 Φ5Mold (Type05)</p>	<p>Figure-6 Φ5Mold (Type06)</p>
<p>Figure-7 Φ5Mold (Type09)</p>	<p>Figure-8 Φ5Mold (Type46)</p>
<p>Figure-9 Φ4Mold (Type41)</p>	<p>Figure-10 Φ4Mold (Type42)</p>

Outer Dimension of LED Lamp

<p>Figure-11 $\Phi 3$Mold (Type31) cup position</p>	<p>Figure-12 $\Phi 3$Mold (Type33) cup position</p>
<p>Figure-13 $\Phi 3$Mold (Type34) cup position</p>	<p>Figure-14 $\Phi 3$Mold (Type36) cup position</p>
<p>Figure-15</p>	<p>Figure-16</p>
<p>Figure-17</p>	<p>Figure-18</p>
<p>Figure-19</p>	<p>Figure-20</p>

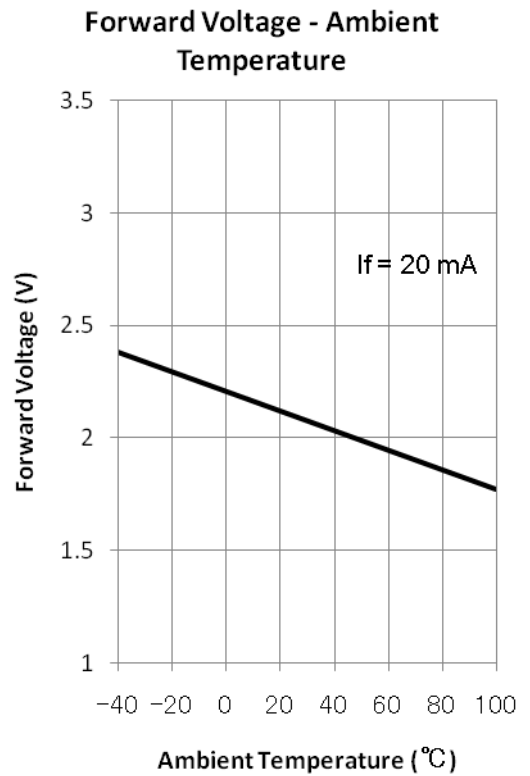
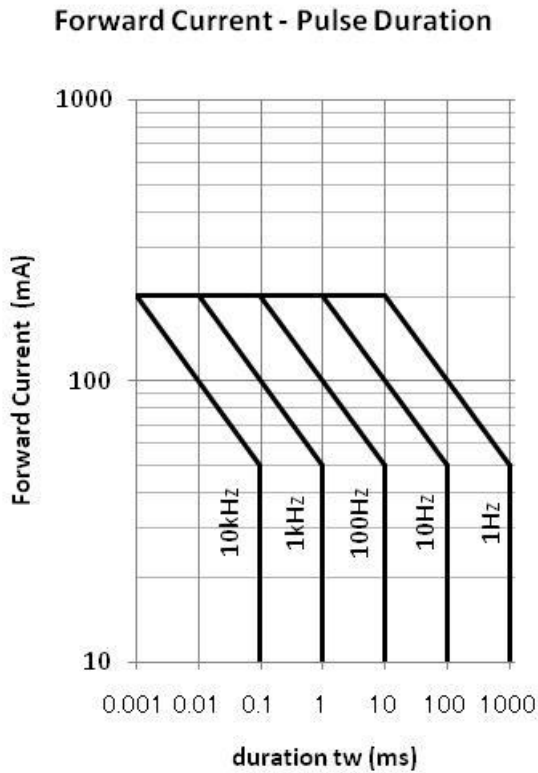
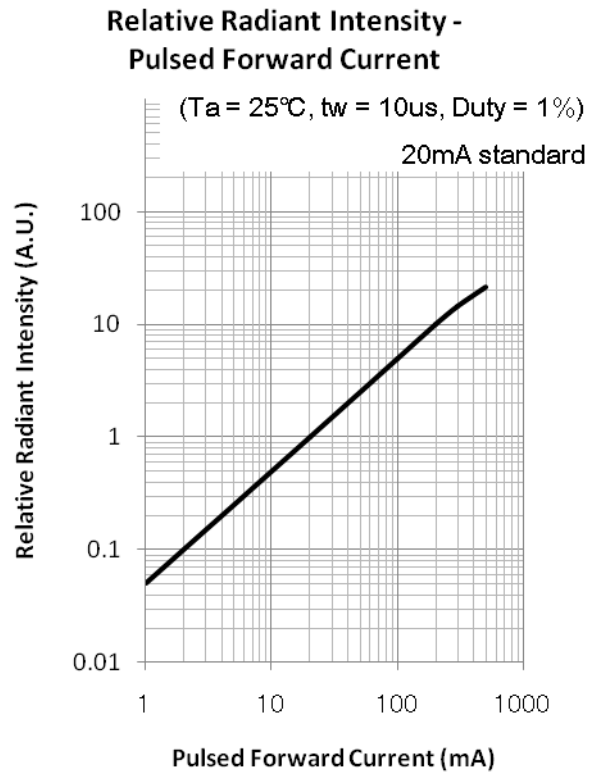
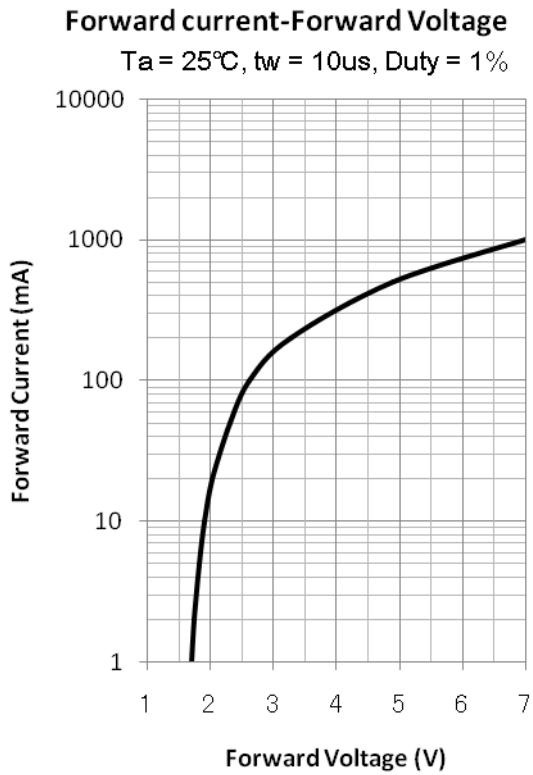
The Viewing half angle



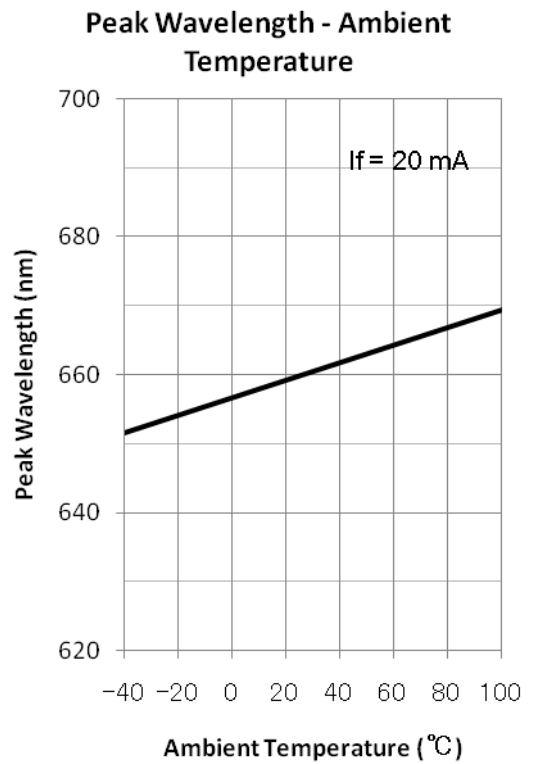
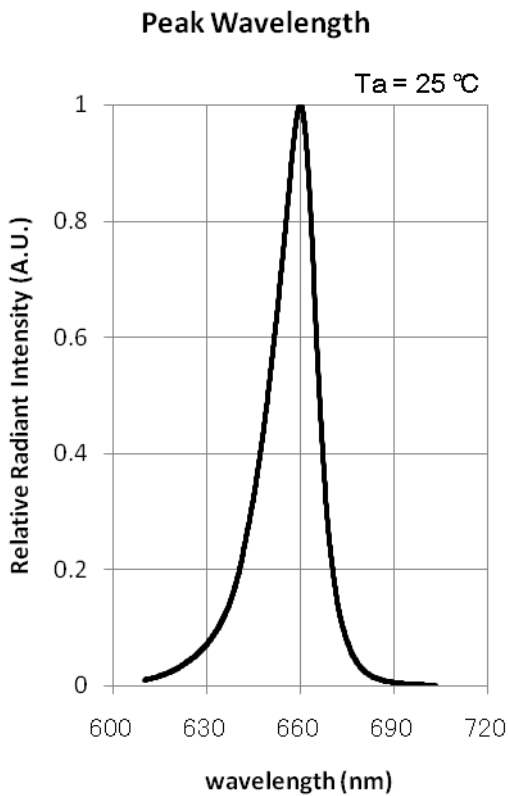
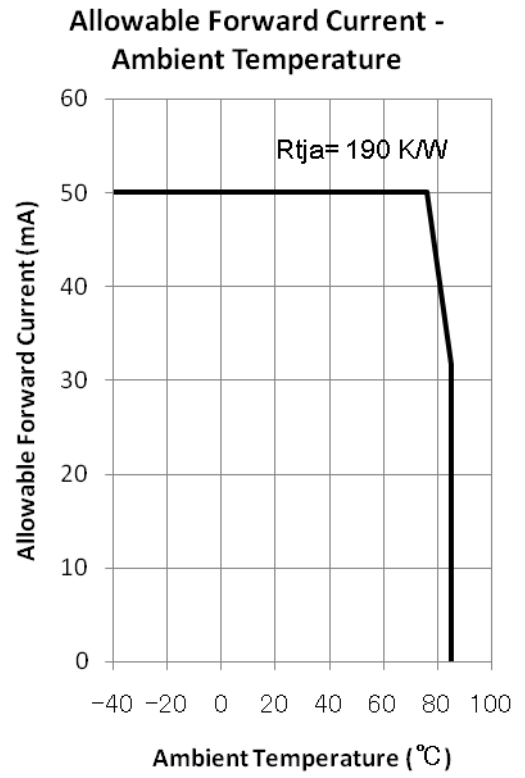
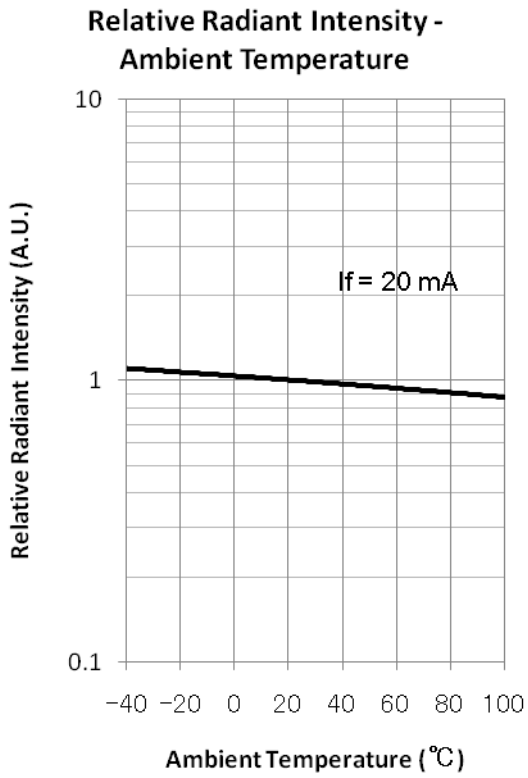
The Viewing half angle

<p>Figure-11 Φ3Mold (Type31)</p>	<p>Figure-12 Φ3Mold (Type33)</p>
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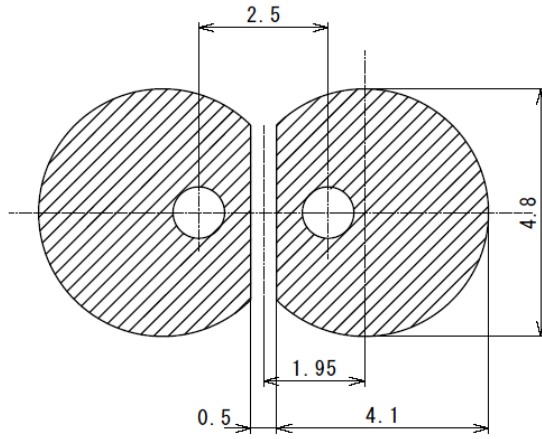
L660N –series



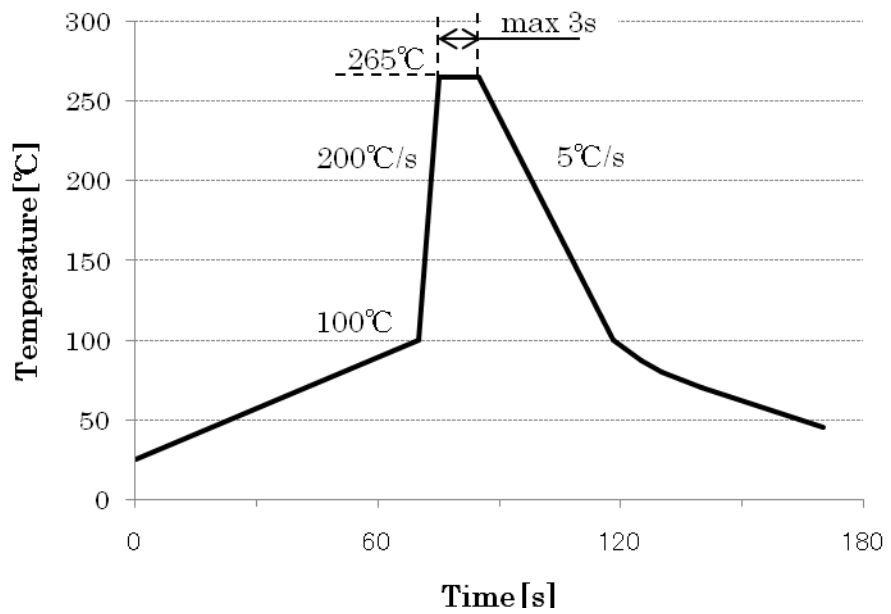
L660N –series



Recommended Land Layout (unit: mm)



Soldering Conditions



Marubeni America Corporation

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