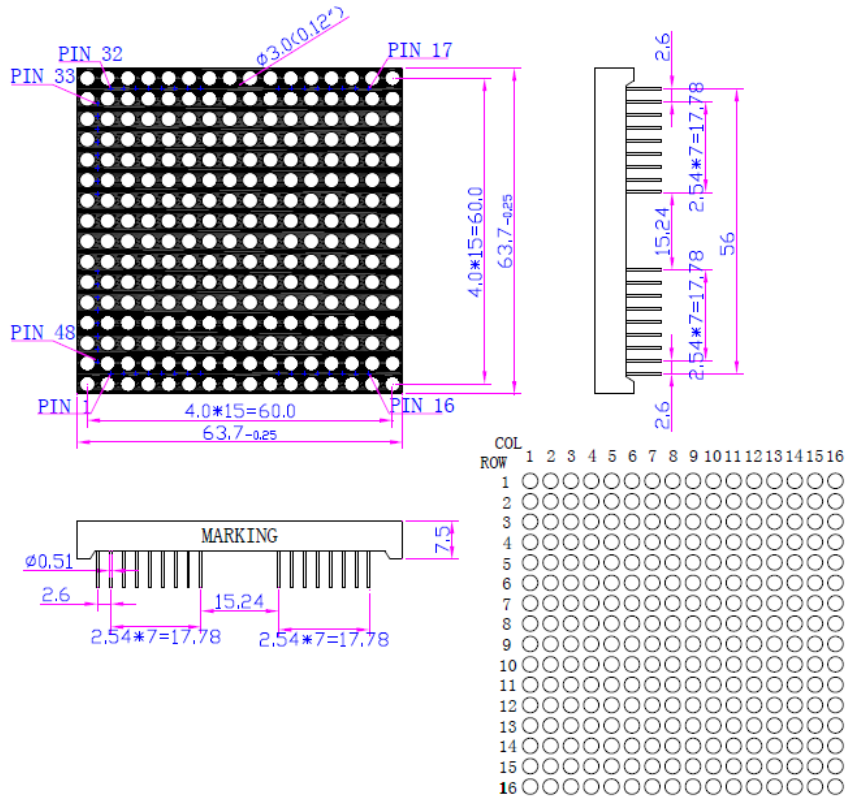
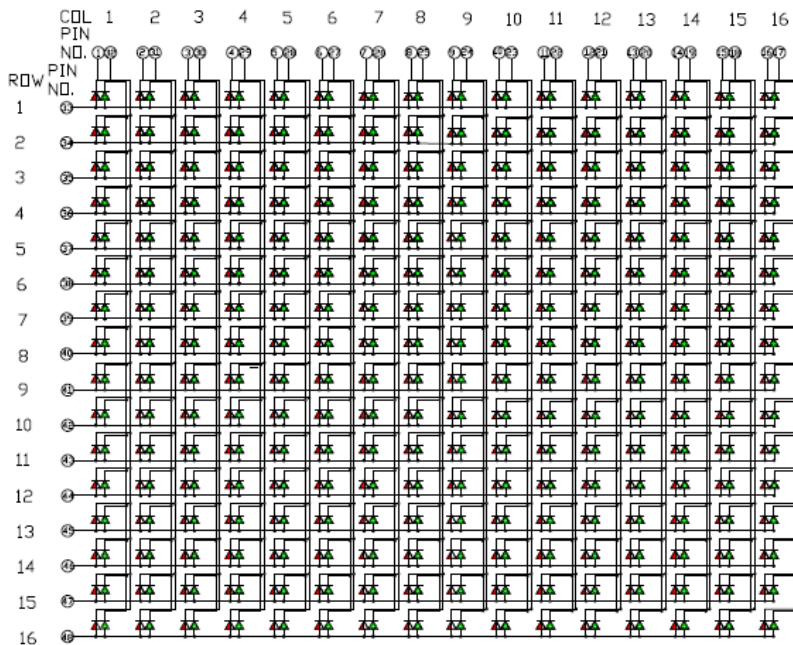


1. (Package Dimensions):



Internal Circuit Diagram



CODE N

Notes:

1. All dimensions are in millimeter, tolerance is ± 0.25 mm unless otherwise noted.
2. Pin length, housing color, marking no & circuit diagram can be customized.
3. Specifications are subject to change without notice.

Chip Material: AlGaInP Yellow Green LED Chip

Absolute Maximum Rating at Ta=25°C

Parameter	Symbol	Maximum Rating	Unit
Power Dissipation	P_D	78	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	I_{PEAK}	90	mA
DC Forward Current	I_F	30	mA
Reverse Voltage	V_R	5	V
Electrostatic discharge	ESD	1000	V
Operating Temperature Range	T_{opr} / T_{stg}	-40°C to + 85°C	
Storage Temperature Range	T_{opr} / T_{stg}	-40°C to + 100°C	

Electrical Optical Character and Curves (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition (Per Chip)
Forward Voltage	V_F	-	2.10	2.60	V	$I_F=20mA$
Luminous Intensity	I_V	25.0	35.0	-	mcd	$I_F=20mA$
Peak Emission Wavelength	λ_p	-	573	-	nm	$I_F=20mA$
Dominant Emission Wavelength	λ_d	-	572	-	nm	$I_F=20mA$
Spectral Line Coordinates	$\Delta\lambda$	-	20	-	nm	$I_F=20mA$
Reverse Current	I_R	-	10	-	uA	$V_R=5V$

Note:

1. Luminous intensity tolerance is $\pm 10\%$.
2. Dominant Emission Wavelength tolerance is $\pm 1nm$.

Typical Electro-Optical Characteristic Curve

Fig. 1 Forward Current vs. Forward Voltage

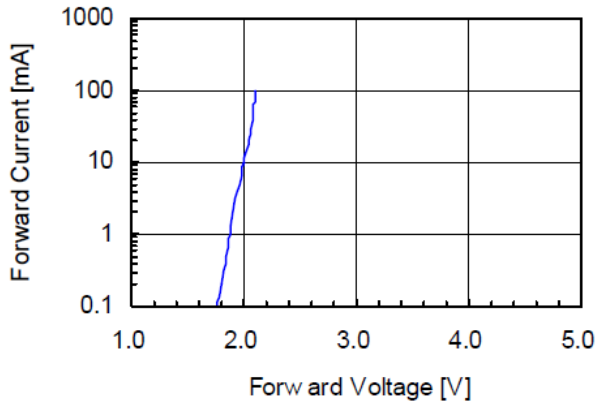


Fig. 2 Relative Intensity vs. Forward Current

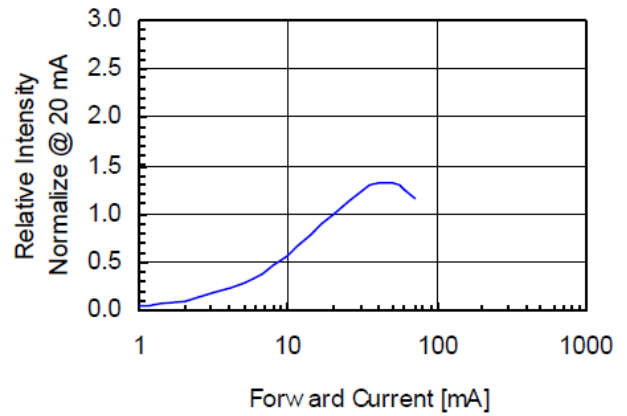


Fig. 3 Forward Voltage vs. Temperature

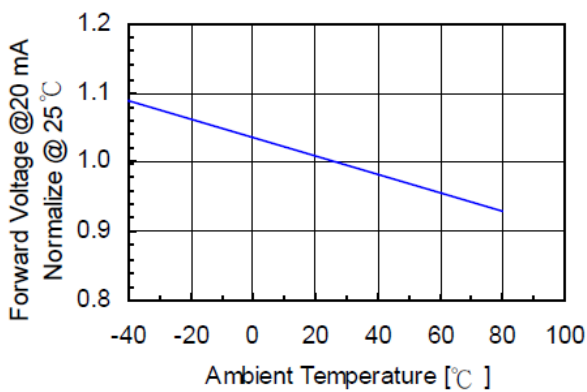


Fig. 4 Relative Intensity vs. Temperature

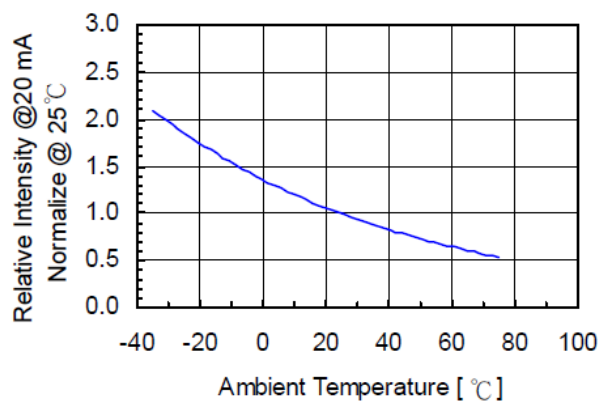
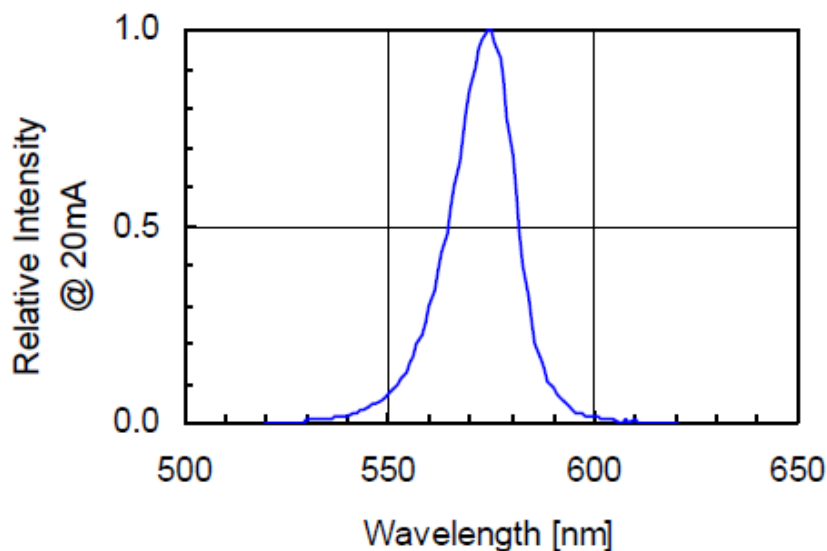


Fig. 5 Relative Intensity vs. Wavelength



Chip Material: AlGaInP Ultra Bright Red LED Chip

Absolute Maximum Rating at Ta=25°C

Parameter	Symbol	Maximum Rating	Unit
Power Dissipation	P_D	78	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	I_{PEAK}	90	mA
DC Forward Current	I_F	30	mA
Reverse Voltage	V_R	5	V
Electrostatic discharge	ESD	1000	V
Operating Temperature Range	T_{opr} / T_{stg}	-40°C to + 85°C	
Storage Temperature Range	T_{opr} / T_{stg}	-40°C to + 100°C	

Electrical Optical Character and Curves (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition (Per Chip)
Forward Voltage	V_F	-	2.00	2.60	V	$I_F=20mA$
Luminous Intensity	I_V	30.0	45.0	-	mcd	$I_F=20mA$
Peak Emission Wavelength	λ_p	-	640	-	nm	$I_F=20mA$
Dominant Emission Wavelength	λ_d	-	630	-	nm	$I_F=20mA$
Spectral Line Coordinates	$\Delta\lambda$	-	20	-	nm	$I_F=20mA$
Reverse Current	I_R	-	10	-	uA	$V_R=5V$

Note:

1. Luminous intensity tolerance is $\pm 10\%$.
2. Dominant Emission Wavelength tolerance is $\pm 1nm$.

Typical Electro-Optical Characteristic Curve

Fig. 1 Forward Current vs. Forward Voltage

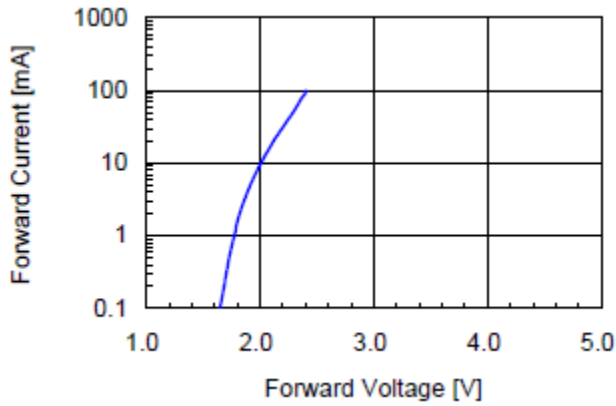


Fig. 2 Relative Intensity vs. Forward Current

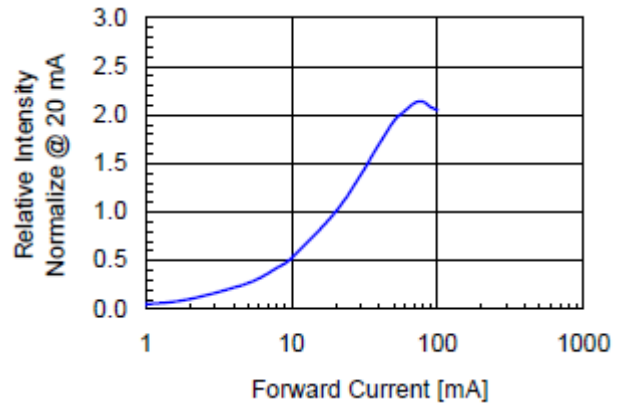


Fig. 3 Forward Voltage vs. Temperature

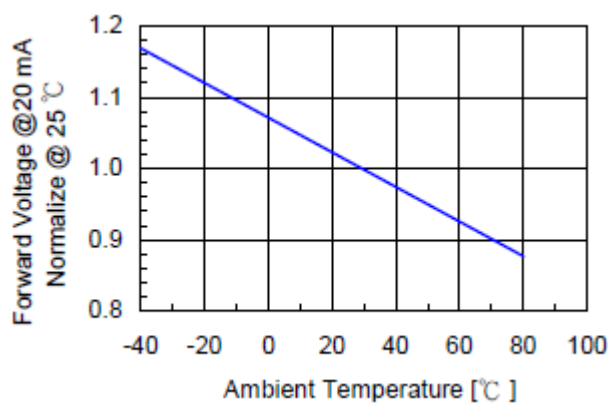


Fig. 4 Relative Intensity vs. Temperature

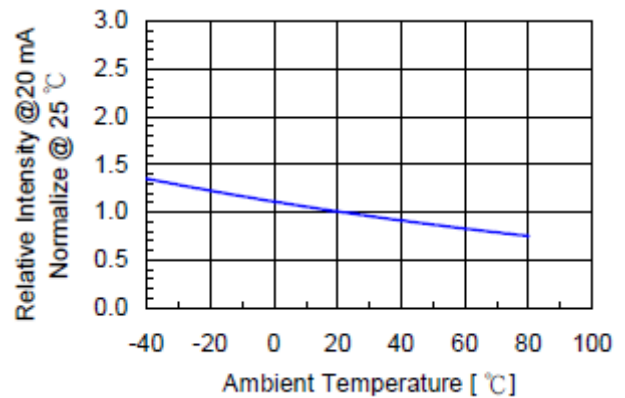
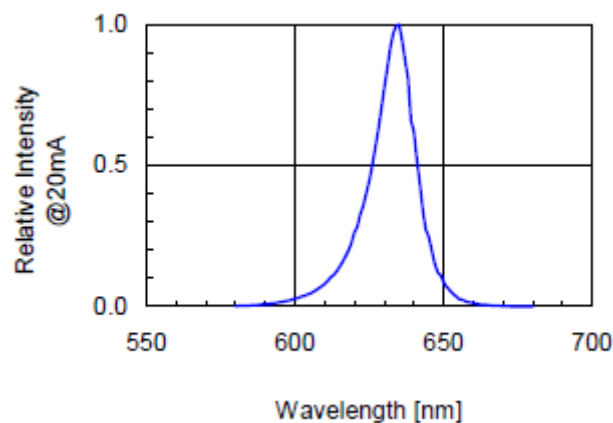
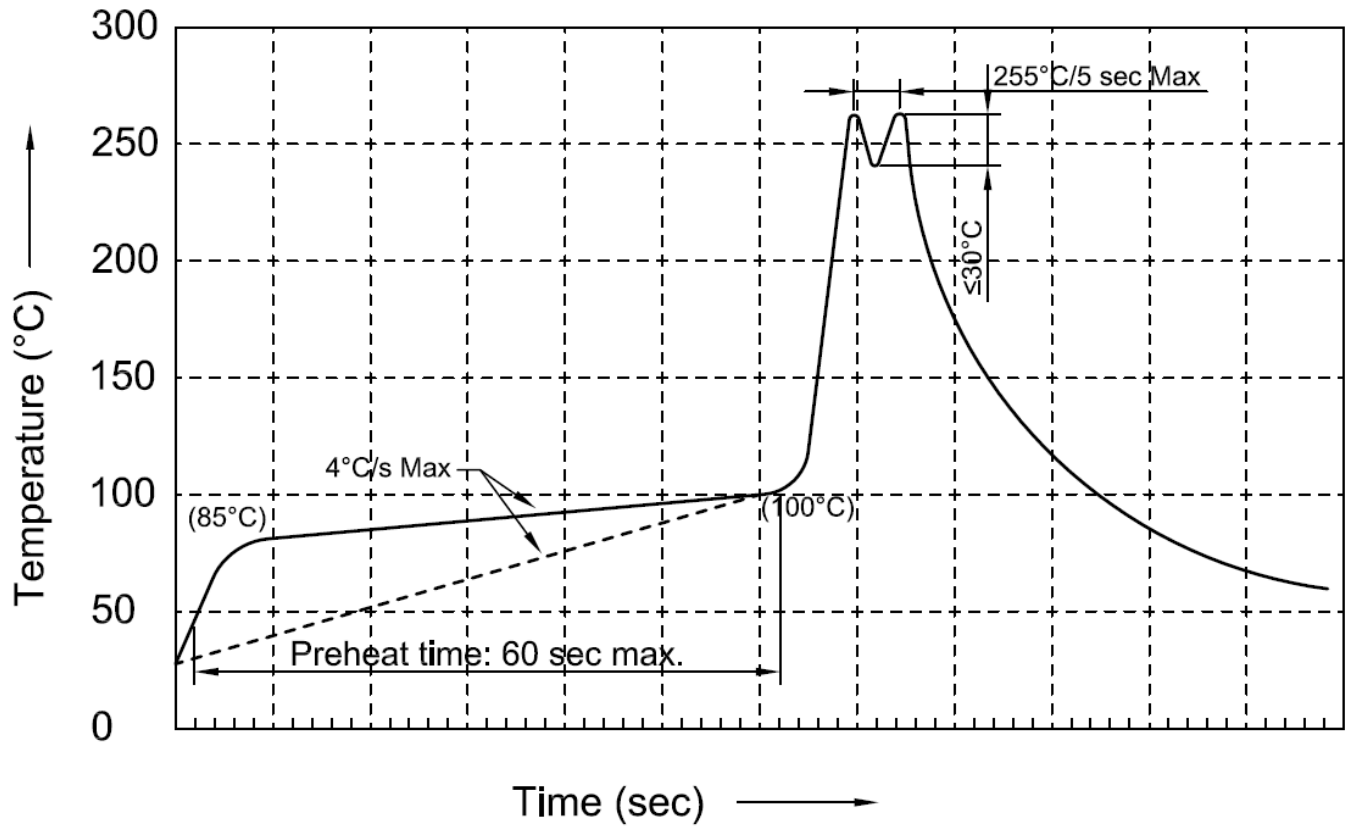


Fig. 5 Relative Intensity vs. Wavelength



Recommended Wave Soldering Profiles



Notes:

1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C.
2. Peak wave soldering temperature between 245-255°C for 3 sec (5 sec max).
3. Do not apply stress to the epoxy resin while the temperature is above 85°C.
4. Fixtures should not apply stress on the component when mounting and soldering process.
5. More than one wave soldering is not allowed.