

ELECTRICAL / OPTICAL CHARACTERISTICS at T_A=25°C

Parameter	Symbol	Emitting Color	Value		Unit
			Typ.	Max.	
Wavelength at Peak Emission I _F = 20mA	λ_{peak}	Super Bright Orange	611	-	nm
Dominant Wavelength I _F = 20mA	$\lambda_{\text{dom}}^{[1]}$	Super Bright Orange	605	-	nm
Spectral Bandwidth at 50% Φ REL MAX I _F = 20mA	$\Delta\lambda$	Super Bright Orange	17	-	nm
Capacitance	C	Super Bright Orange	27	-	pF
Forward Voltage I _F = 20mA	V _F ^[2]	Super Bright Orange	2.2	2.8	V
Reverse Current (V _R = 5V)	I _R	Super Bright Orange	-	10	μA
Temperature Coefficient of λ_{peak} I _F = 20mA, -10°C ≤ T ≤ 85°C	TC _{λ_{peak}}	Super Bright Orange	0.13	-	nm/°C
Temperature Coefficient of λ_{dom} I _F = 20mA, -10°C ≤ T ≤ 85°C	TC _{λ_{dom}}	Super Bright Orange	0.06	-	nm/°C
Temperature Coefficient of V _F I _F = 20mA, -10°C ≤ T ≤ 85°C	TC _V	Super Bright Orange	-2	-	mV/°C

Notes:

1. The dominant wavelength (λ_d) above is the setup value of the sorting machine. (Tolerance λ_d : ±1nm.)
2. Forward voltage: ±0.1V.
3. Wavelength value is traceable to CIE127-2007 standards.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

ABSOLUTE MAXIMUM RATINGS at T_A=25°C

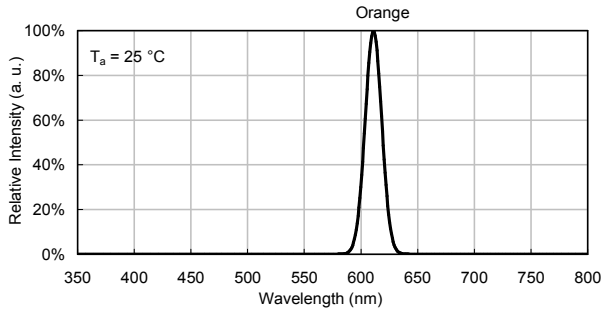
Parameter	Symbol	Value	Unit
Power Dissipation	P _D	84	mW
Reverse Voltage	V _R	5	V
Junction Temperature	T _j	115	°C
Operating Temperature	T _{op}	-40 to +85	°C
Storage Temperature	T _{stg}	-40 to +85	°C
DC Forward Current	I _F	30	mA
Peak Forward Current	I _{FM} ^[1]	150	mA
Electrostatic Discharge Threshold (HBM)	-	3000	V
Thermal Resistance (Junction / Ambient)	R _{th JA} ^[2]	630	°C/W
Thermal Resistance (Junction / Solder point)	R _{th JS} ^[2]	460	°C/W

Notes:

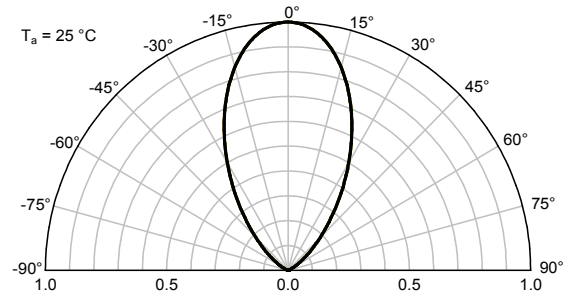
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. R_{th JA}, R_{th JS} Results from mounting on PC board FR4 (pad size ≥ 16 mm² per pad).
3. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

TECHNICAL DATA

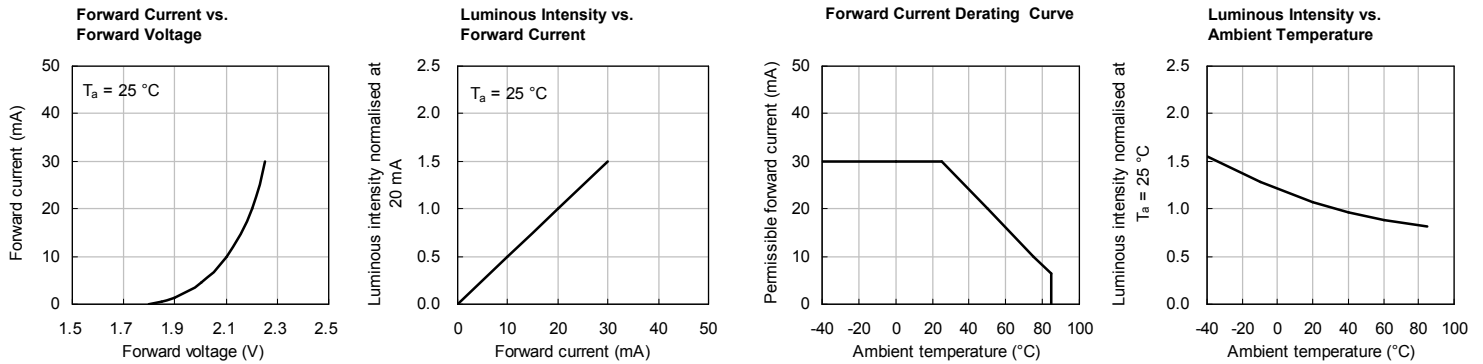
RELATIVE INTENSITY vs. WAVELENGTH



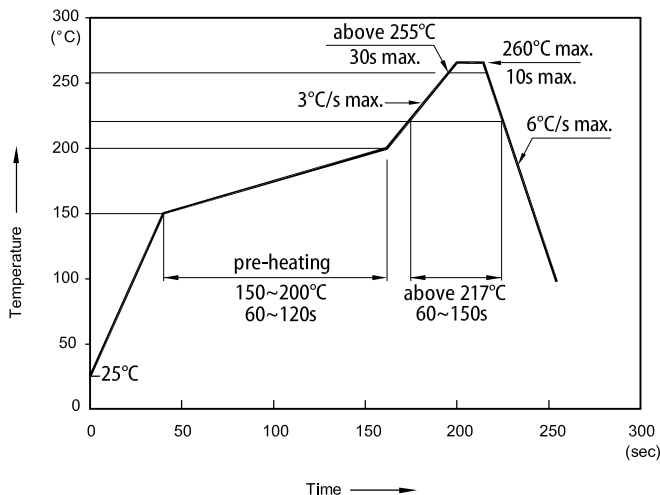
SPATIAL DISTRIBUTION



SUPER BRIGHT ORANGE

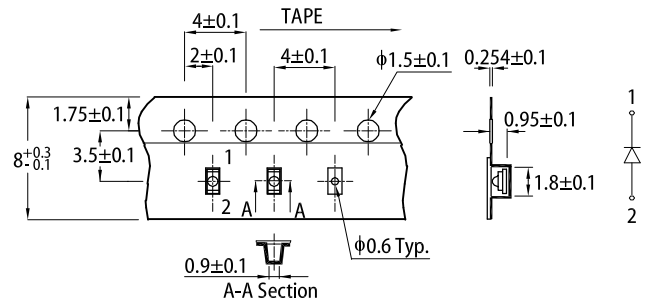


REFLOW SOLDERING PROFILE for LEAD-FREE SMD PROCESS

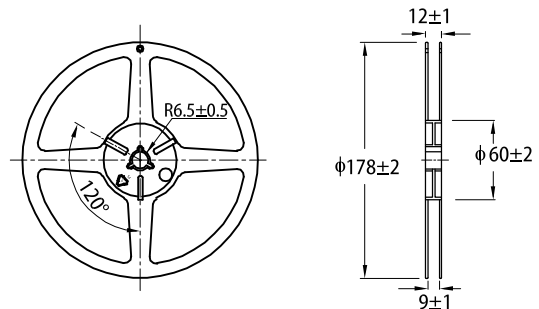


- Notes:
1. Don't cause stress to the LEDs while it is exposed to high temperature.
 2. The maximum number of reflow soldering passes is 2 times.
 3. Reflow soldering is recommended. Other soldering methods are not recommended as they might cause damage to the product.

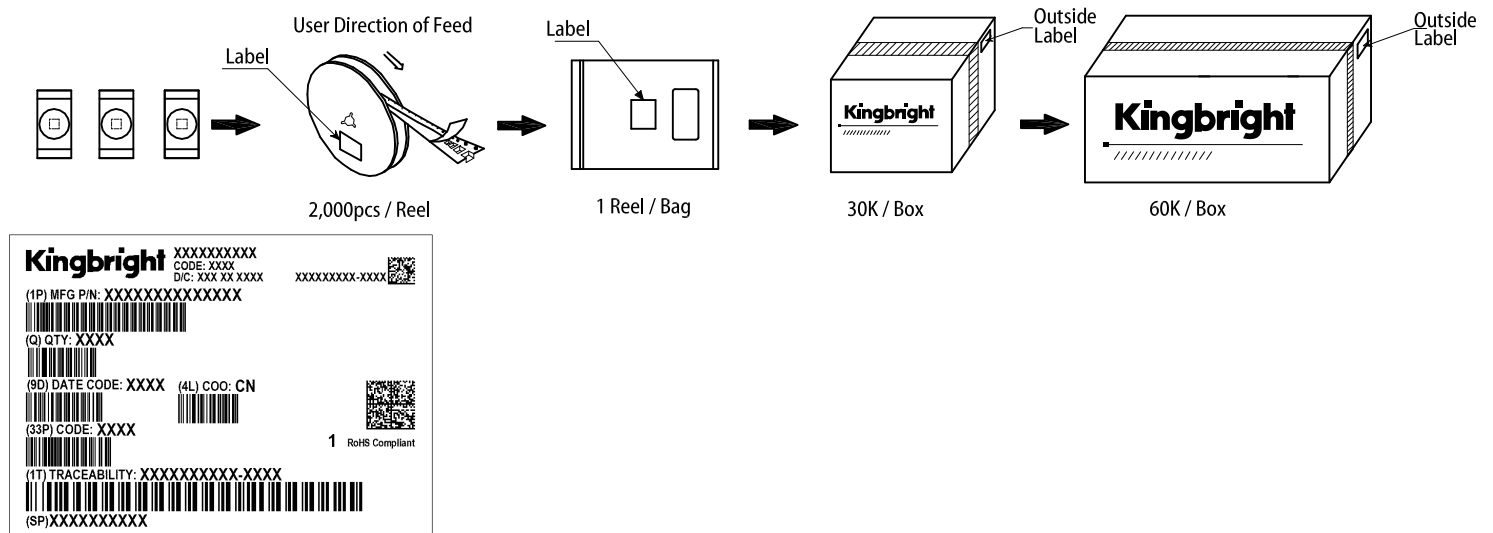
TAPE SPECIFICATIONS (units : mm)



REEL DIMENSION (units : mm)



PACKING & LABEL SPECIFICATIONS



PRECAUTIONARY NOTES

1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.
2. The part number, type, and specifications mentioned in this document are subject to future change and improvement without notice. Before production usage customer should refer to the latest datasheet for the updated specifications.
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