

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}	High Efficiency Red Super Bright Green	627 565	-	nm
Dominant Wavelength I _F = 20mA	λ _{dom} ^[1]	High Efficiency Red Super Bright Green	617 568	-	nm
Spectral Bandwidth at 50% Φ REL MAX I _F = 20mA	Δλ	High Efficiency Red Super Bright Green	45 30	-	nm
Capacitance	C	High Efficiency Red Super Bright Green	15 15	-	pF
Forward Voltage I _F = 20mA	V _F ^[2]	High Efficiency Red Super Bright Green	2 2.2	2.5 2.5	V
Reverse Current (V _R = 5V)	I _R	High Efficiency Red Super Bright Green	-	10 10	μA

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

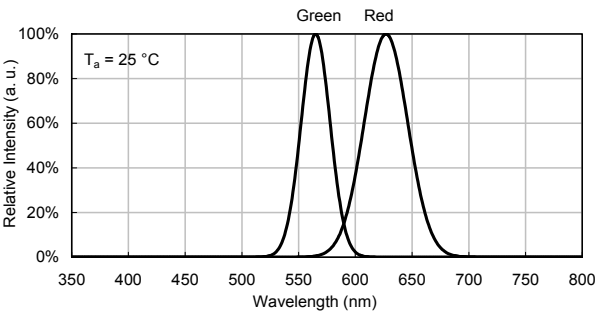
Parameter	Symbol	Value		Unit
		High Efficiency Red	Super Bright Green	
Power Dissipation	P _D	75	62.5	mW
Reverse Voltage	V _R	5	5	V
Junction Temperature	T _J	125	110	°C
Operating Temperature	T _{op}	-40 To +85		°C
Storage Temperature	T _{stg}	-40 To +85		°C
DC Forward Current	I _F	30	25	mA
Peak Forward Current	I _{FM} ^[1]	160	140	mA
Electrostatic Discharge Threshold (HBM)	-	8000	8000	V

Notes:

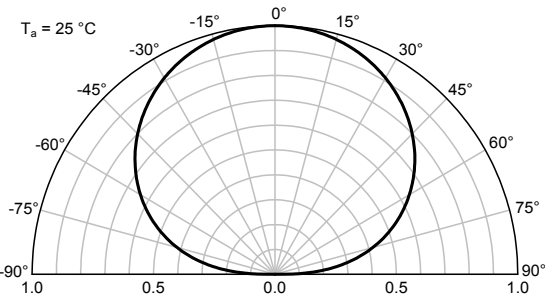
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

TECHNICAL DATA

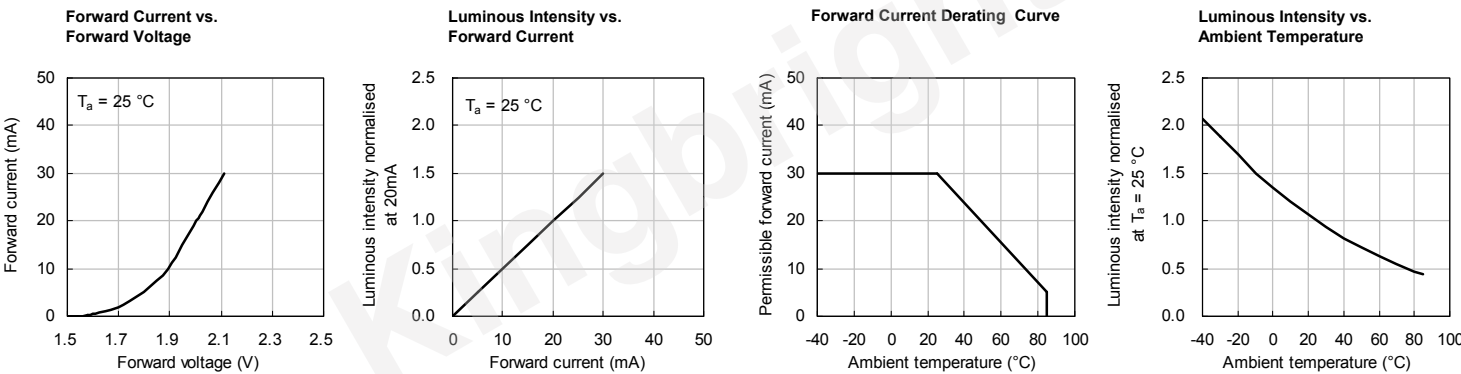
RELATIVE INTENSITY vs. WAVELENGTH



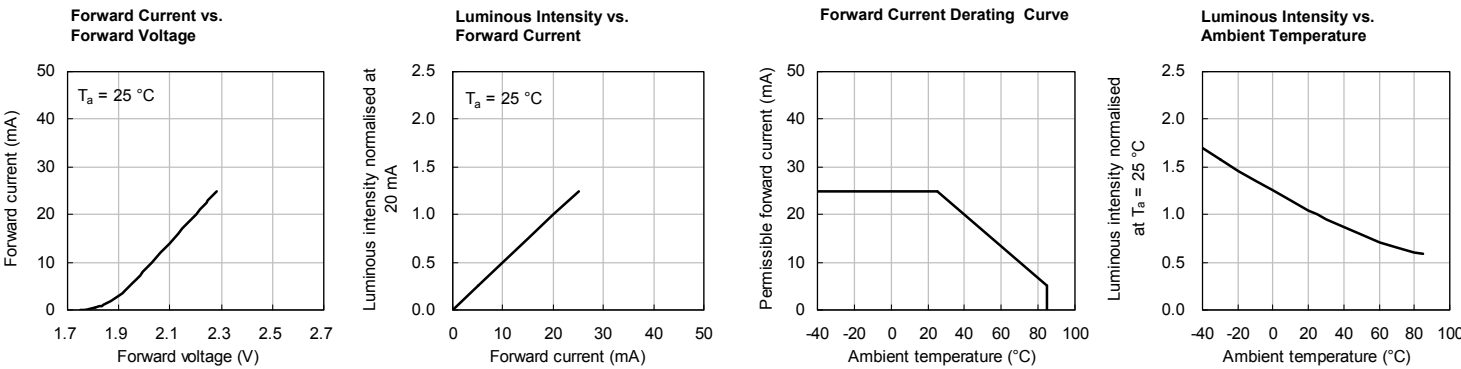
SPATIAL DISTRIBUTION



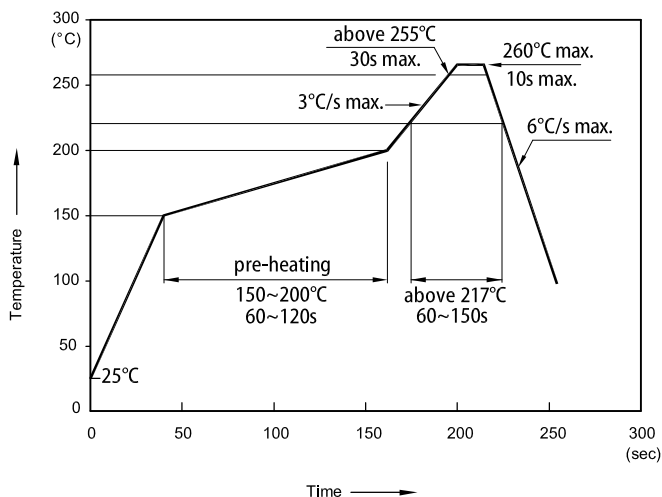
HIGH EFFICIENCY RED



SUPER BRIGHT GREEN



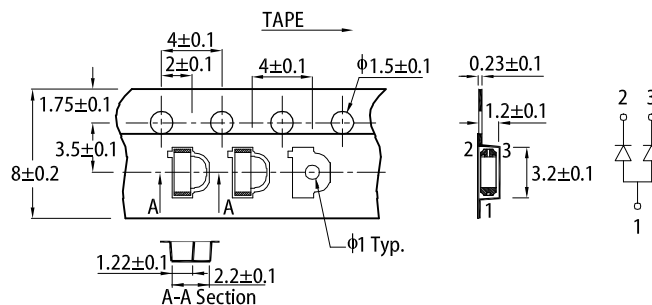
REFLOW SOLDERING PROFILE for LEAD-FREE SMD PROCESS



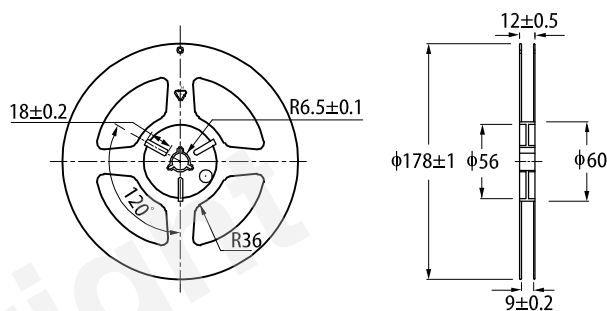
Notes:

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.

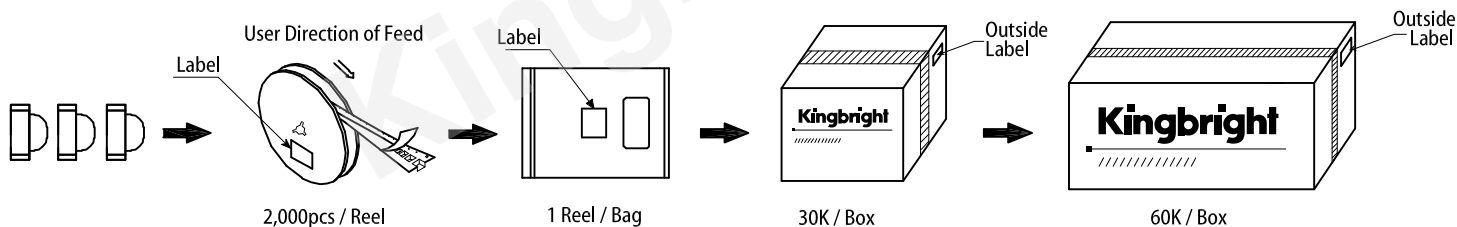
TAPE SPECIFICATIONS (units : mm)



REEL DIMENSION (units : mm)



PACKING & LABEL SPECIFICATIONS



Kingbright		XXXXXXXXXX-XXXX	
P/NO: XXXXXXXX			
QTY: XXXXXpcs			
S/N: XXXX			
CODE: XX			
COUNTRY: CN	QC DATE: XXX XX XXXX PASSED		
LOT NO:			
XXXXXXXXXX-XXXX			
(SP)XXXXXXXXXX			
RoHS Compliant			

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.
3. When using the products referenced in this document, please make sure the product is being operated within the environmental and electrical limits specified in the datasheet. If customer usage exceeds the specified limits, Kingbright will not be responsible for any subsequent issues.
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