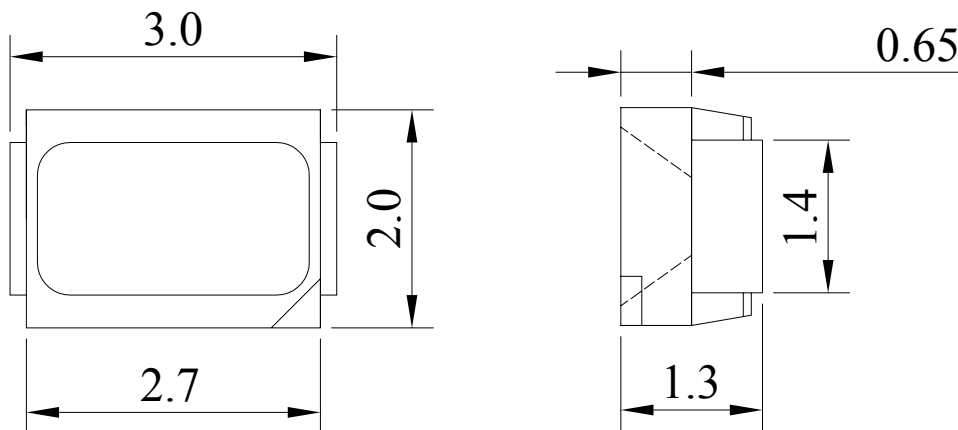


3.0 x 2.0mm SMD Type



Package Dimensions:



* All dimensions are in mm
* Tolerance: $\pm 0.25\text{mm}$ unless otherwise noted.

Ant Part No.	LED Chip		Lens Colour
	Material	Emitting Colour	
703-1026	InGaN/Sapphire	White	Yellow Diffused

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$:

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	108	mW
Reverse Voltage	V_R	5	V
D.C. Forward Current	I_f	30	mA
Peak Current ($1/10$ Duty Cycle, 0.1ms Pulse Width)	$I_f(\text{Peak})$	100	mA
Operating Temperature Range	$T_{opr.}$	-40 to +100	$^\circ\text{C}$
Storage Temperature Range	$T_{stg.}$	-40 to +100	$^\circ\text{C}$
Soldering Temperature	$T_{sld.}$	Dip Soldering: 260°C for 10sec. Hand Soldering: 350°C for 3sec.	
Electric Static Discharge Threshold (HBM)	ESD	6000	V

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3.0 x 2.0mm SMD Type



Electrical & Optical Characteristics:

Parameter	Symbol	Condition	Value			Unit	
			Min.	Typ.	Max.		
Luminous Intensity	D	I _v	IF = 20 mA	1800	-	2000	mcd
	E			2000	-	2400	
	F			2200	-	2600	
	G			2400	-	2400	
Luminous Flux	Φ _v	IF = 20 mA	-	4700	-	lm	
Forward Voltage	V1	V _f	IF = 20 mA	2.9	-	3.0	V
	V2			3.0	-	3.1	
	V3			3.1	-	3.2	
	V4			3.2	-	3.3	
	V5			3.3	-	3.4	
	V6			3.4	-	3.5	
	V7			3.5	-	3.6	
Correlated Colour Temperature	WC	CCT	IF = 20 mA	5500	-	5750	K
	WD			5750	-	6000	
	WE			6000	-	6250	
	WF			6250	-	6500	
Reverse Current	I _r	V _r = 5V	-	-	50	μA	
View Angle	2θ _{1/2}	IF = 20 mA	-	120	-	deg	

Notes: 1. The data is tested by an IS tester.
2. Customer's special requirements are also welcome.

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Typical Electrical / Optical Characteristic Curves:

(25°C Ambient Temperature unless otherwise noted)

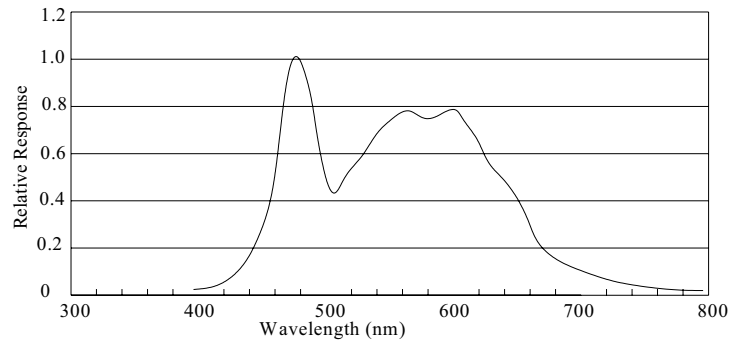
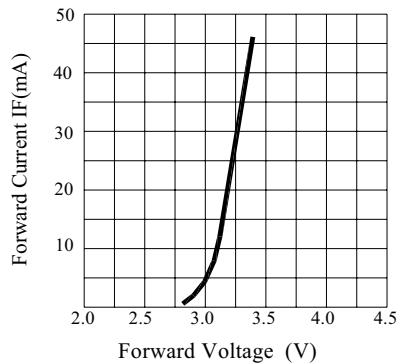
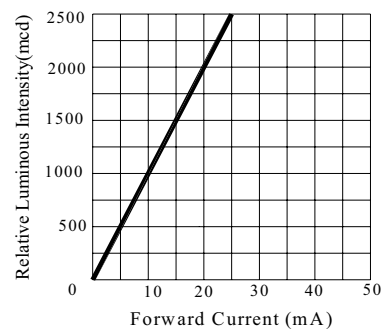


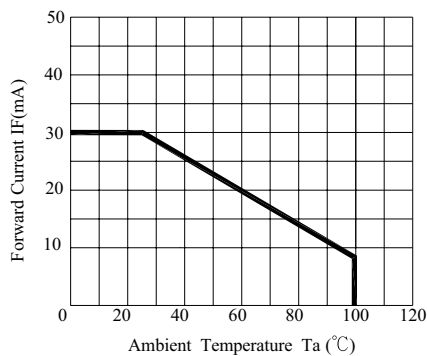
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



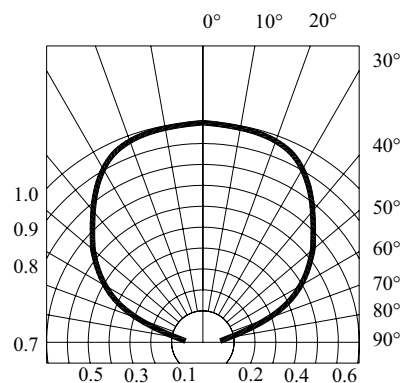
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current



Radiation Diagram

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3.0 x 2.0mm SMD Type



Storage:

Recommended storage environment:

- Temperature: 5°C ~ 30°C (41°F ~ 86°F)
- Humidity: 60% RH Max.
- Moisture measures: Please refer to Moisture-sensitive label on reels package bags. If unused LEDs remain, they should be stored in moisture proof packages, such as a sealed container with packages of moisture absorbant material (silica gel). It is also recommended to return the LEDs to the original moisture proof bag and to reseal it again (fold the open bag firmly shut and keep in a dry environment).

Soldering:

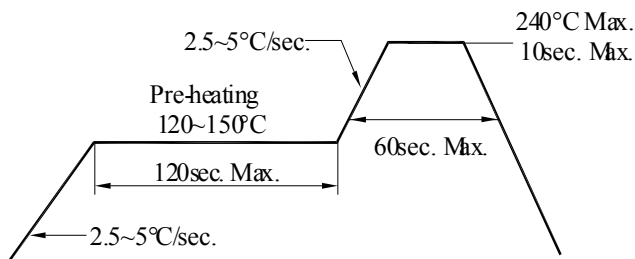
Reflow Soldering			Hand Soldering	
	Lead Solder	Lead-free Solder		
Pre-heat	120 ~ 150°C	180 ~ 200°C	Temperature	350°C Max.
Pre-heat Time	120sec. Max.	120sec. Max.	Soldering Time	3sec. Max. (one time only)
Peak Temperature	240°C Max.	260°C Max.		
Soldering Time	10sec. max.	10sec. Max.		
Condition	Refer to Temperature-profile 1	Refer to Temperature-profile 2		

* After reflow soldering rapid cooling should be avoided.

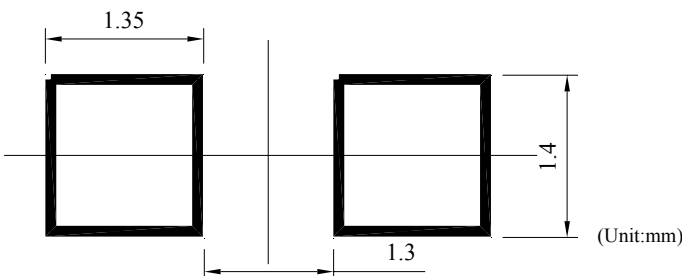
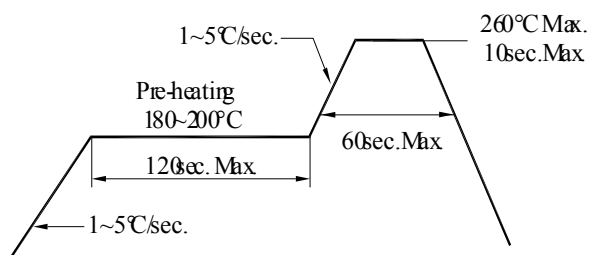
Temperature-profile (Surface of circuit board):

Use the following conditions shown in the figure.

<1 : Lead Solder>



<2 : Lead-free Solder>



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