

SPECIFICATION



Product : Topview 3528 BRG SMD LED

Part No. : IWS-L3516-BRG-K3

Date : 2023. 08. 03 Ver. 0.1

Customer :

Checked By	Checked By	Checked By	Checked By	Approval

Manufacturer : CoAsia Corp.

Checked By	Checked By	Checked By	Checked By	Approval
Approved				



CoAsia Corporation
193, Namdongseo-ro, Namdong-gu, Incheon 21634 KOREA
TEL:+82-32-813-1801, FAX:+82-32-816-1900
URL: <http://www.coasiacorp.co.kr>

Topview 3528 SMD LED

IWS-L3516-BRG-K3

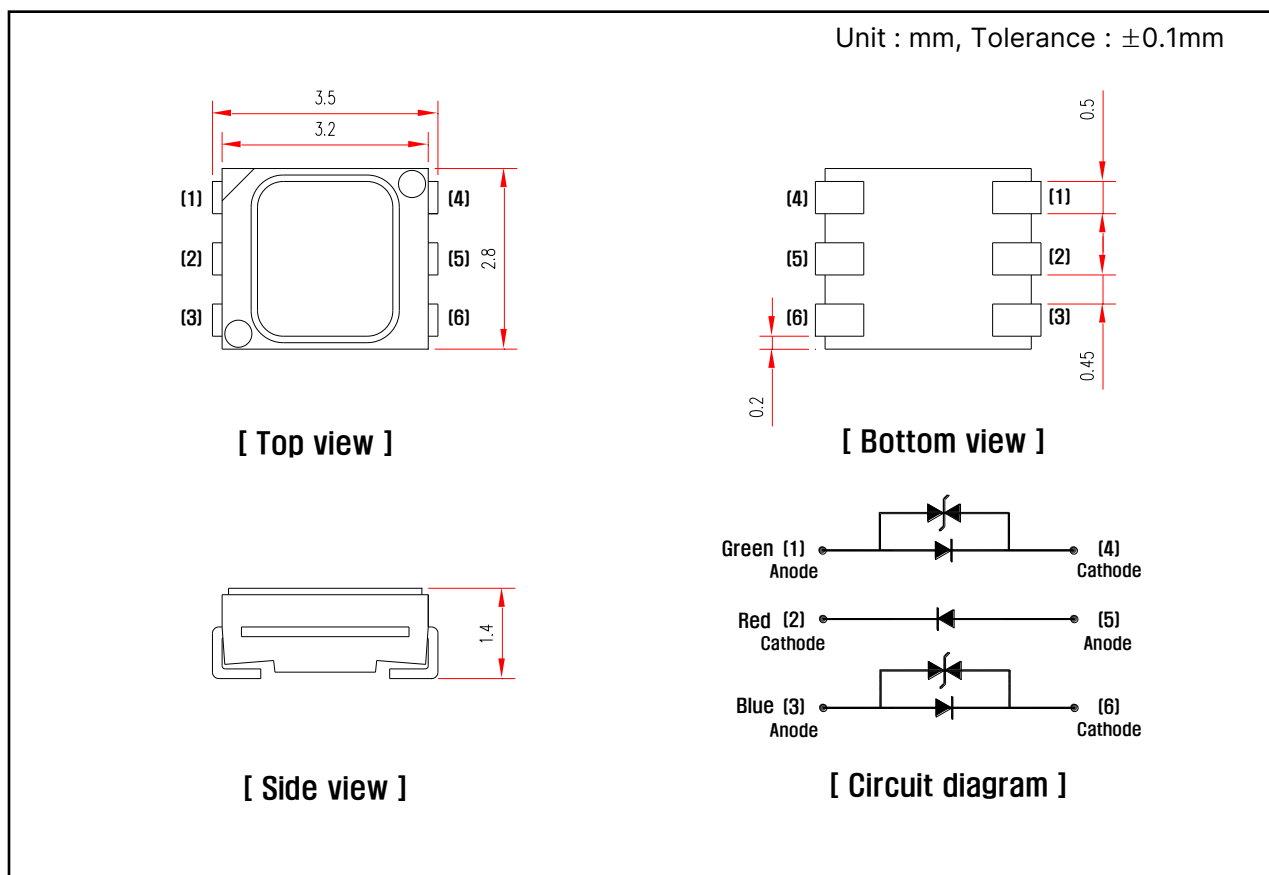
1. Features

- 3 Chip High-Luminosity SMD LED
- 3.5 x 2.8 x 1.4 mm (L x W x H), 6-Pin, Small Size Surface Mount Type
- Wide Viewing Angle
- Long Operating Life
- MSL 2a
- ESD : up to 2KV (HBM)

2. Applications

- Automotive: Backlight in Dashboard and Switch (AEC-Q101)
- Lighting Device: Indicator, General Lighting
- Camera Flash, Hand Carrier Flash
- General Use

3. Outline Drawing and Dimension



Note

1. All dimensions are in millimeters
2. All dimensions without tolerances are for reference only

Topview 3528 SMD LED

IWS-L3516-BRG-K3

4. Absolute Maximum Ratings($T_a = 25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Value			Unit
		Red	Green	Blue	
Power Dissipation	P_d	78	108	108	mW
Continuous Forward Current	I_F	30	30	30	mA
Peak Forward Current *1	I_{FP}	100	100	100	mA
Junction Temperature	T_j	125	125	125	$^{\circ}\text{C}$
Operating Temperature	T_{opr}	-40 ~ 105			$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40 ~ 125			$^{\circ}\text{C}$
Soldering Temperature	T_{sol}	260 (30sec)			$^{\circ}\text{C}$

*1 Duty ratio = 1/10, Pulse width =

0.1ms

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

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit.
Forward Voltage*2	V _F	I _F = 20mA /1-chip	Red	1.8	-	2.6	V
			Green	2.6	-	3.6	V
			Blue	2.6	-	3.6	V
Reverse Current	I _R	V _R = 5V /1-chip	Red	-	-	10	μA
			Green				
			Blue				
Dominant Wavelength*3	W _D	I _F = 20mA /1-chip	Red	600	-	630	nm
			Green	516	-	532	nm
			Blue	450	-	475	nm
Luminous Intensity*4	I _v	I _F = 20mA /1-chip	Red	555	-	1500	mcd
			Green	827	-	3100	
			Blue	97	-	633	
View angle*5	2θ _{1/2}	-	-	-	120	-	°

*2 Forward Voltage has a tolerance of $\pm 0.05\text{V}$.

*3 Dominant Wavelength has an accuracy of $\pm 2\text{nm}$.

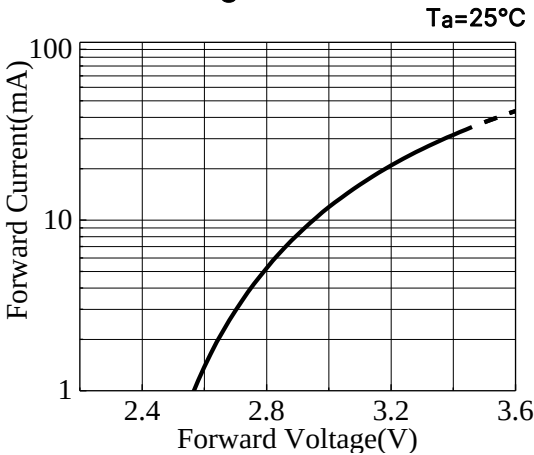
*4 Luminous Intensity is tested by a tester calibrated by CAS 140B(CIE LED_B) and has an accuracy of 10%.

*5 Viewing Angle is the angle until 50% of brightness measured from the front part of LED.

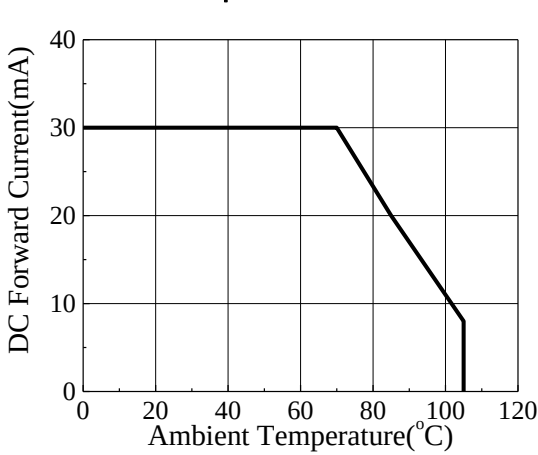
6. Typical Characteristics Curves

6.1 Blue

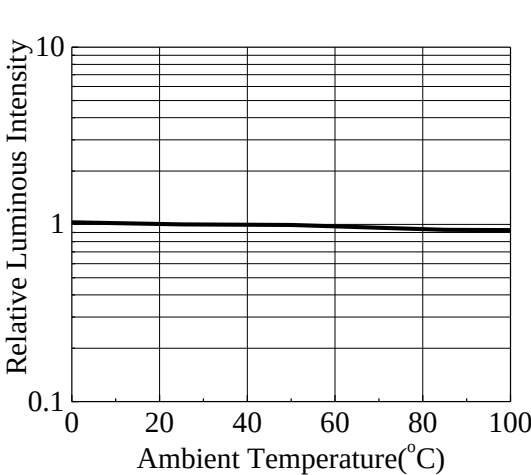
Forward Current vs.
Forward Voltage



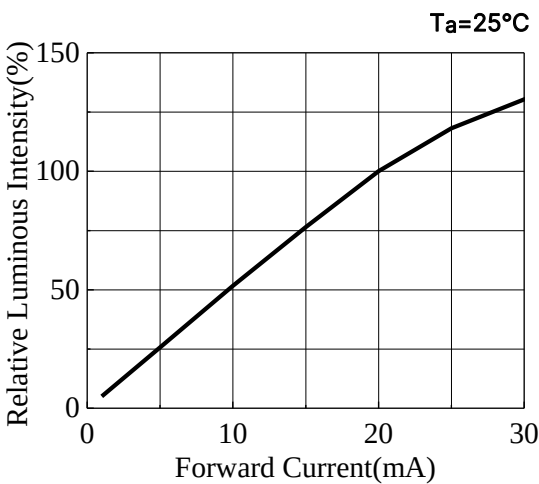
Forward Current vs.
Ambient Temperature



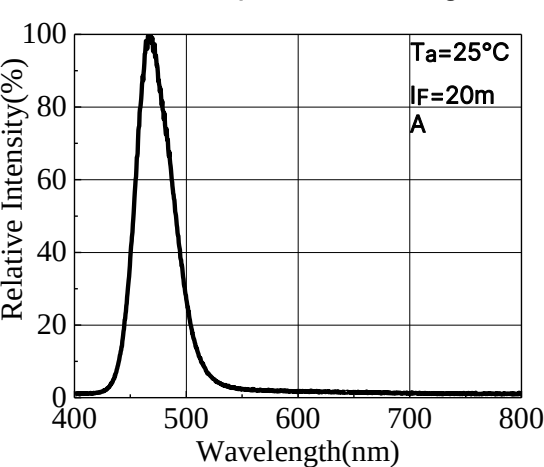
Relative Luminous Intensity vs.
Ambient Temperature



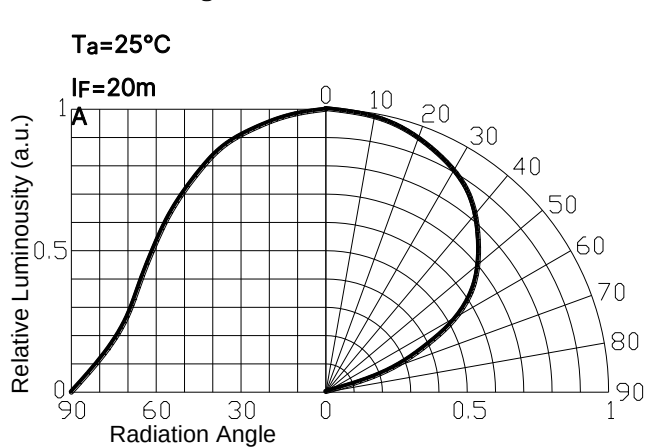
Relative Luminous Intensity vs.
Forward Current



Relative Intensity vs. Wavelength



Radiation Diagram

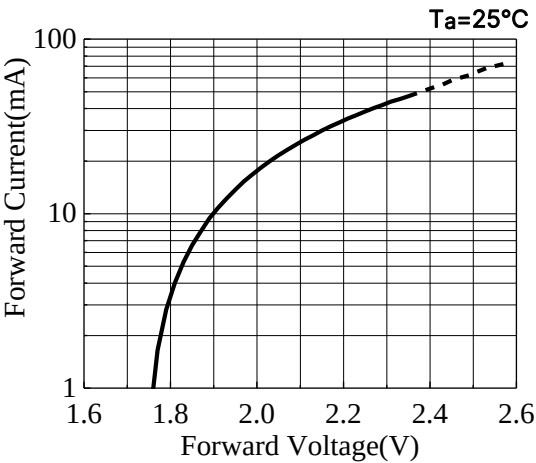


Topview 3528 SMD LED

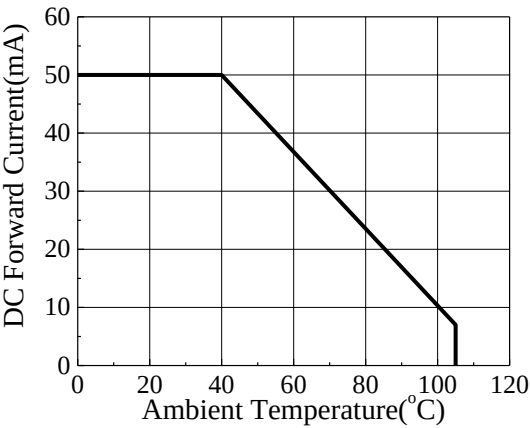
IWS-L3516-BRG-K3

6.2 Red

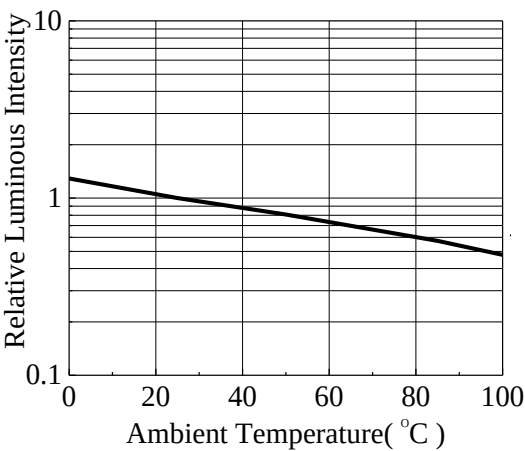
Forward Current vs.
Forward Voltage



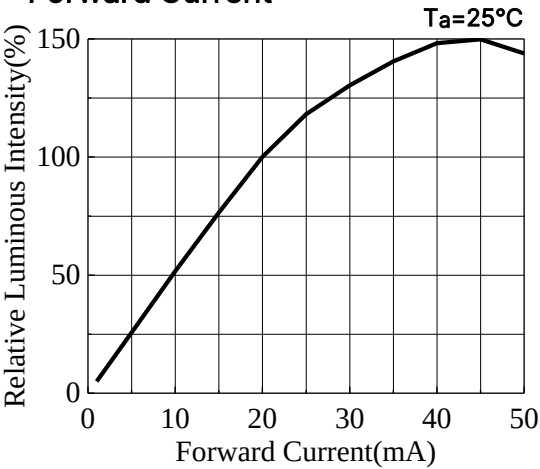
Forward Current vs.
Ambient Temperature



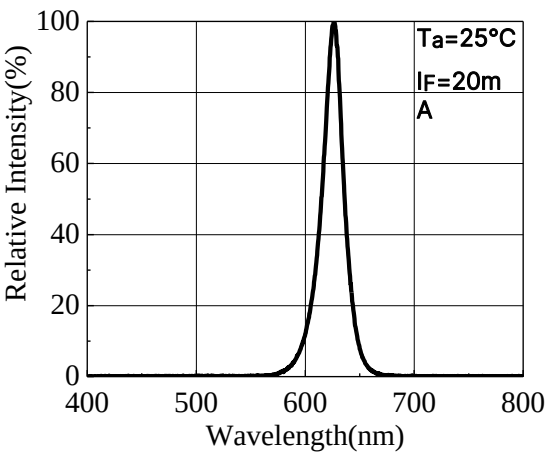
Relative Luminous Intensity vs.
Ambient Temperature



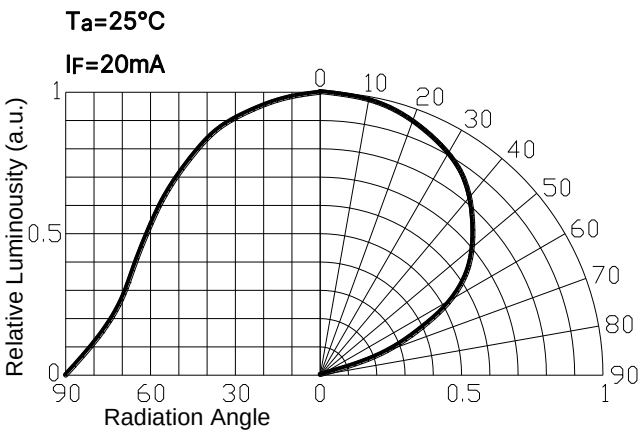
Relative Luminous Intensity vs.
Forward Current



Relative Intensity vs. Wavelength



Radiation Diagram



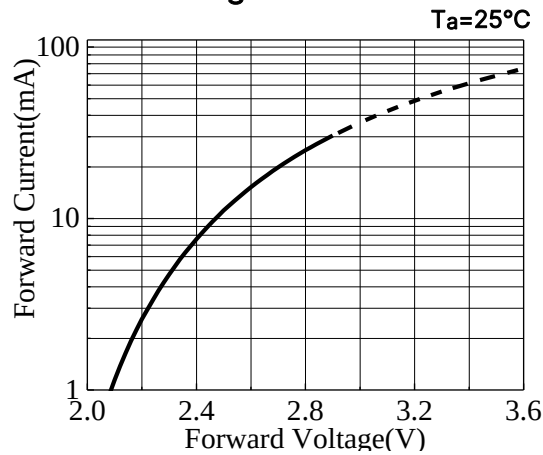
Topview 3528 SMD LED

IWS-L3516-BRG-K3

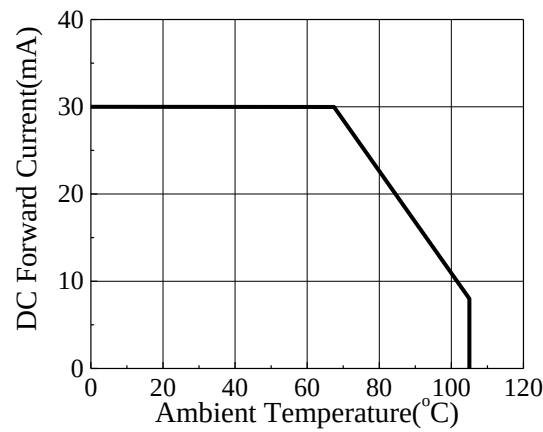


6.3 Green

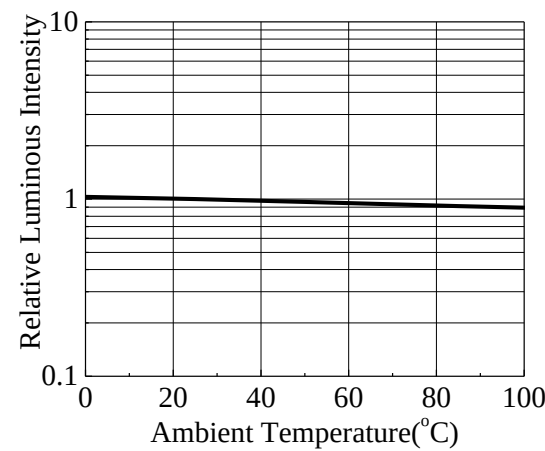
Forward Current vs.
Forward Voltage



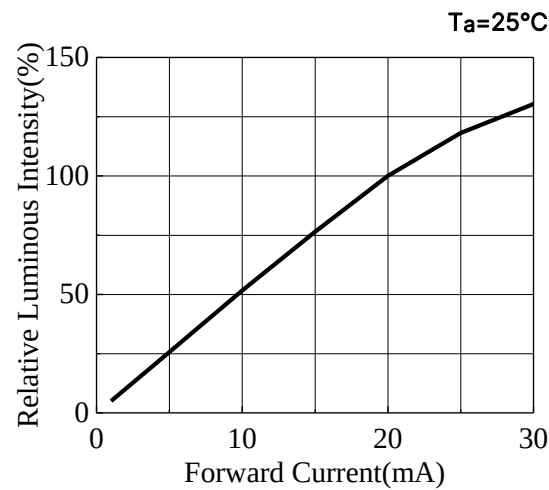
Forward Current vs.
Ambient Temperature



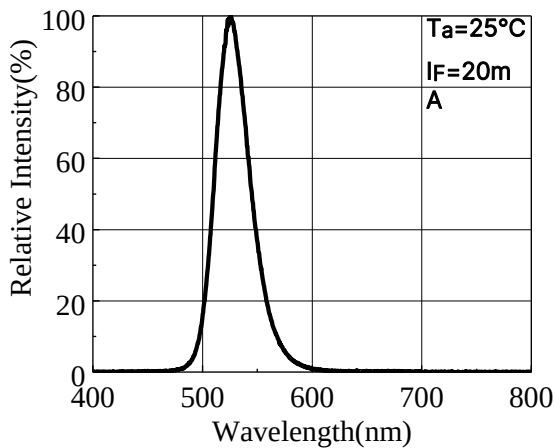
Relative Luminous Intensity vs.
Ambient Temperature



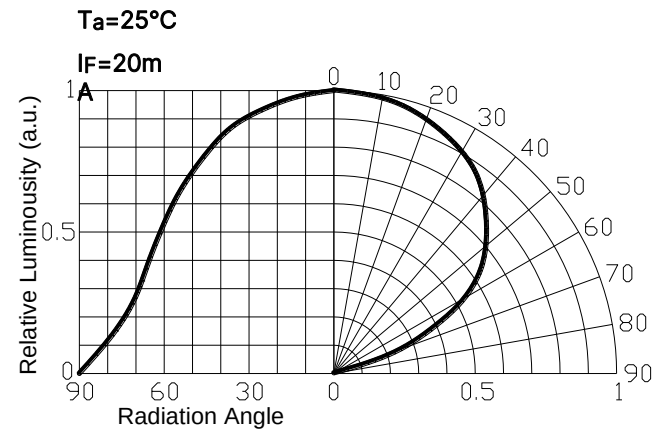
Relative Luminous Intensity vs.
Forward Current



Relative Intensity vs. Wavelength



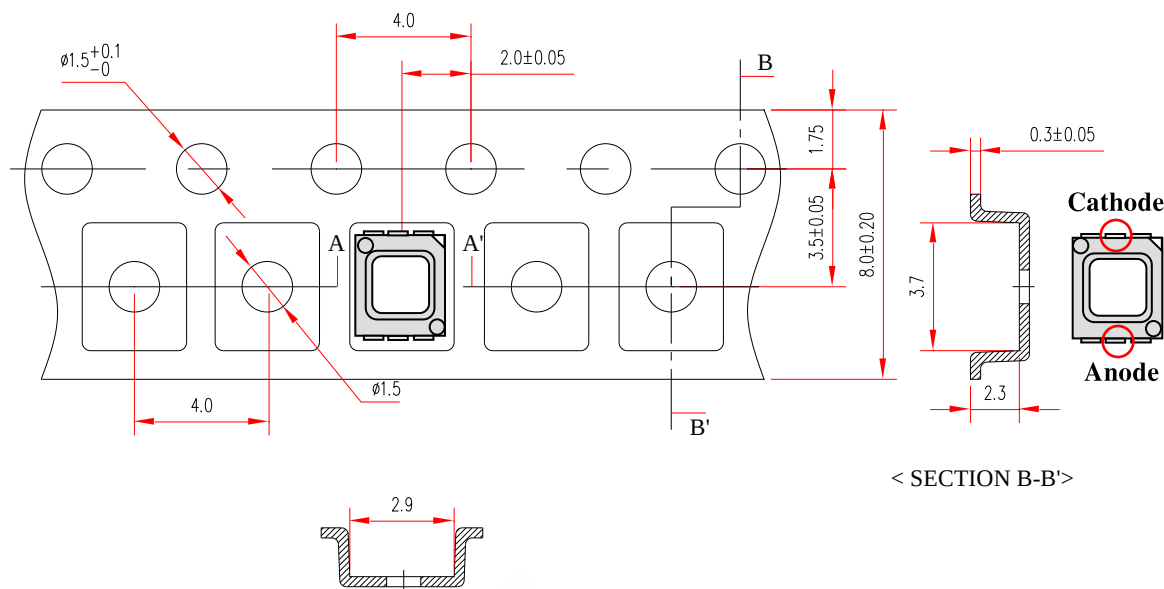
Radiation Diagram



Topview 3528 SMD LED IWS-L3516-BRG-K3

7. Dimension of Tape / Reel

7.1 Tape Dimension

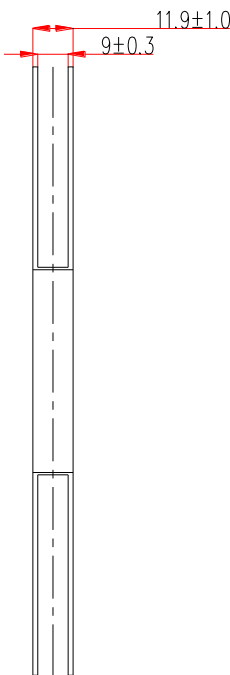
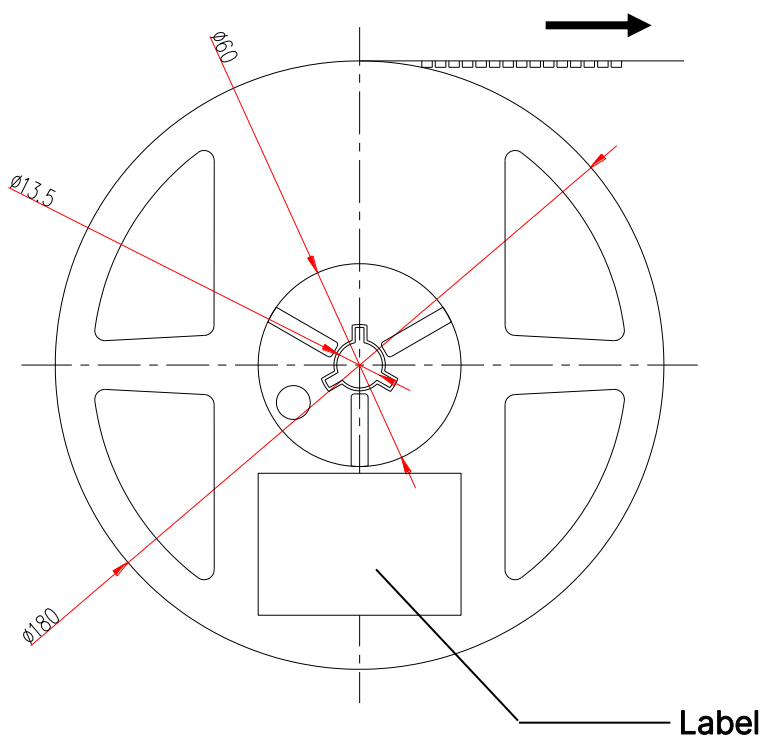


< SECTION A-A'>

< SECTION B-B'>

Tolerance ± 0.1 , Unit: mm

7.2 Reel Dimension

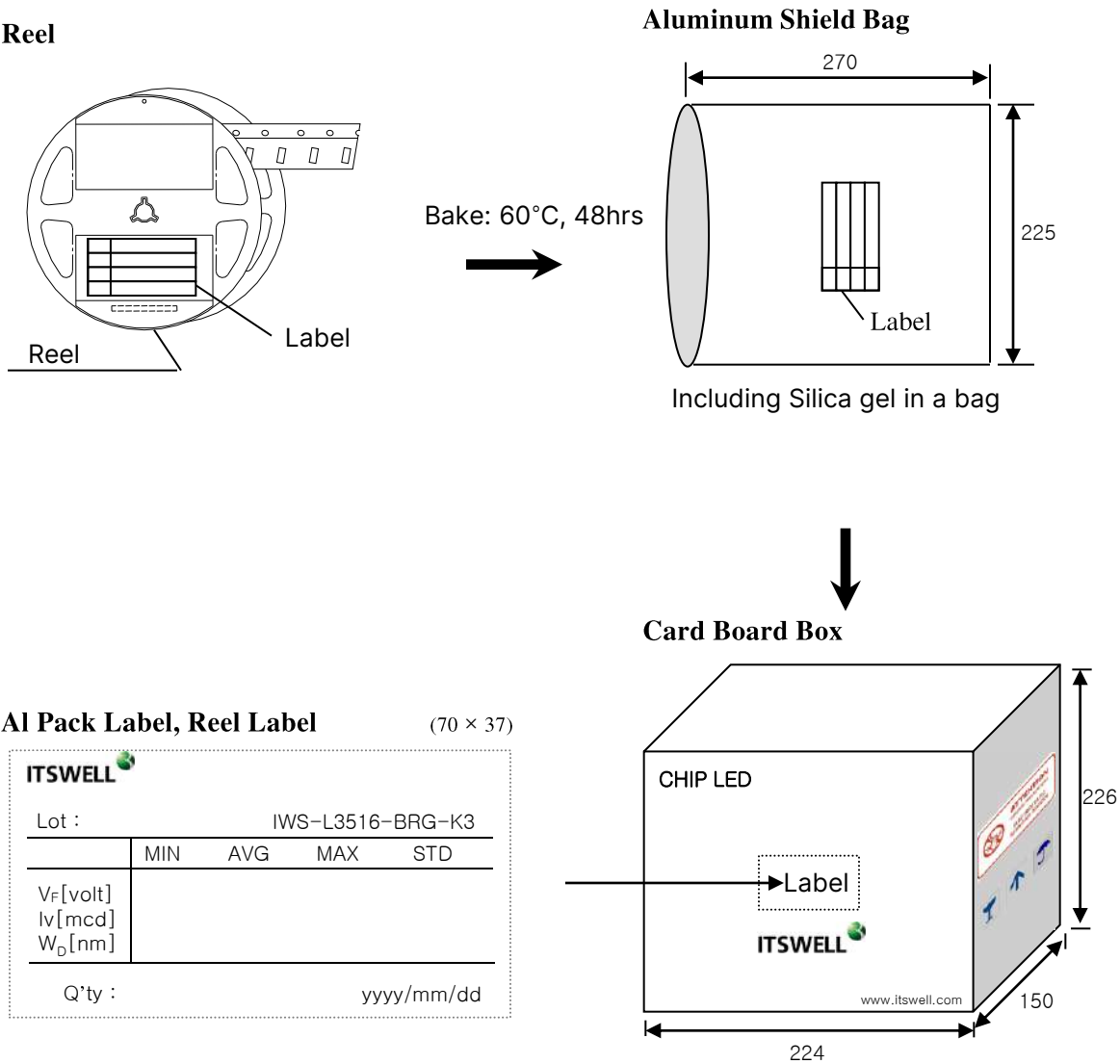


Topview 3528 SMD LED

IWS-L3516-BRG-K3

8. Packing Dimension

Unit :mm



	Dimensions (mm)	Reel / Box	Q'ty / Box(pcs)
Reel	Φ180mm, 12mm Width	—	300 Min 2,000 Max
Al Shield Bag	270x225	—	300 Min 2,000 Max
Card Board Box	224x150x226	10 Max	3,000 Min 20,000 Max

9. Spec. Review History

[illegible]