

產品規格書

PRODUCT SPECIFICATION

客戶名稱

Customer

客戶料號

Part No.

版本號

A1

VersionNo.

品名

Description

KO-3528RGB

規格

Model

送樣日期

Date

承認蓋章後請寄回承認書一份

Please return to us one copy of "SPECIFICATION FOR APPROVAL"

With your approved signatures

客戶承認簽章 CUSTOMER APPROVED SIGNATURES	核准 APPROVED	制訂者 ISSUED

Feature:

- Low power consumption
- Hight performance
- P/b free / RoHS compliant

Applications:

- Indicators
- Backlighting for electronic devices
- Illuminatons
- General Lighting
- LED display module

Dice material	Emitted color	Lens Color
AlGaInP	Red	Water Clear
InGaN	Green	
InGaN	Blue	

Electrical/Optical Characteristics(Ta=25°C)

Parameter	Symbol	Condition	Die	Min	Typ.	Max	Unit
Luminous Intensity	I _v	IF=20mA	R	350	400	-	mcd
		IF=15mA	G	900	1000	-	mcd
		IF=10mA	B	400	450	-	mcd
Dominant Wavelength	λ _D	IF=20mA	R	620	622	-	nm
		IF=15mA	G	524	526	-	nm
		IF=10mA	B	468	472	-	nm
Viewing Angle	2θ1/2	IF=20mA	-		120		Deg
Forward Voltage	V _F	IF=20mA	R	1.9	2.1	2.4	V
		IF=15mA	G	2.8		3.4	V
		IF=10mA	B	2.8		3.4	V
Reverse Current	I _R	V _R =5V	-			10	μA

Note: Luminous intensity tolerance ±15%
Wavelength tolerance ± 1nm (WD)

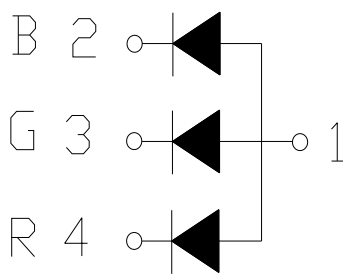
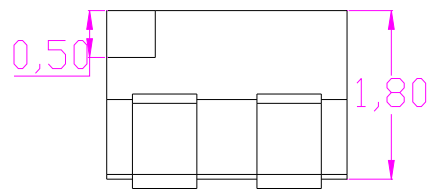
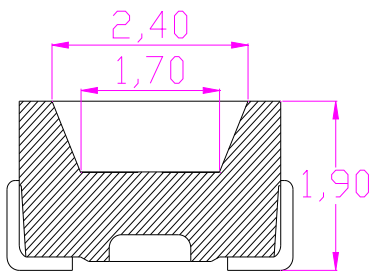
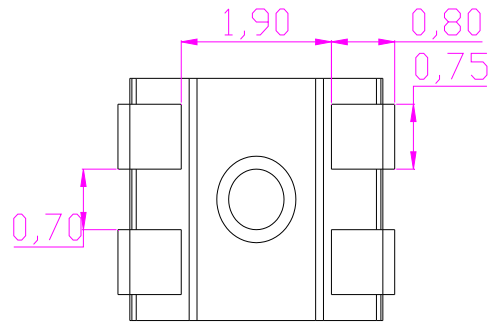
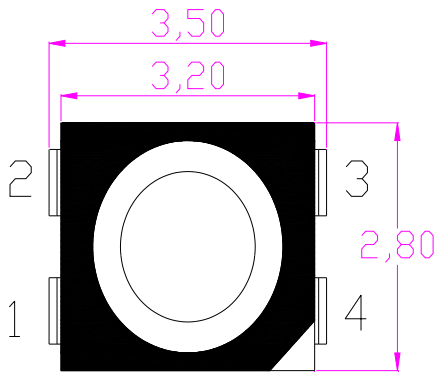
Forward voltage tolerance ± 0.1v
CIE (X.Y) tolerance ± 0.01 (CIE)

Absolute Maximum Ratings(Ta=25°C)

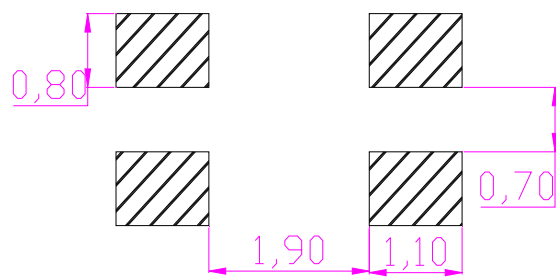
Parameter	Symbol	Die	Maximum	Unit
Power Dissipation	Pd	R	60	mW
		G	95	mW
		B	95	mW
Peak Forward Current(1/10 Duty Cycle 0.1ms Pulse Width)	IF(Peak)	R	80	mA
		G	100	mA
		B	100	mA
Continuous Forward Current	IF	R	30	mA
		G	30	mA
		B	30	mA
Reverse Voltage	VR	5		V
Operating Temperature Range	Topr	-30 to +80		°C
Storage Temperature Range	Tstg	-40 to +90		°C
Soldering Temperature	Tsol	Reflow: 245°C for 10 sec. Hand: 350°C for 3 sec.		

Note: The value are based on 1 die performance

Package Outline Dimensions:



Recommended Soldering Pad Dimensions

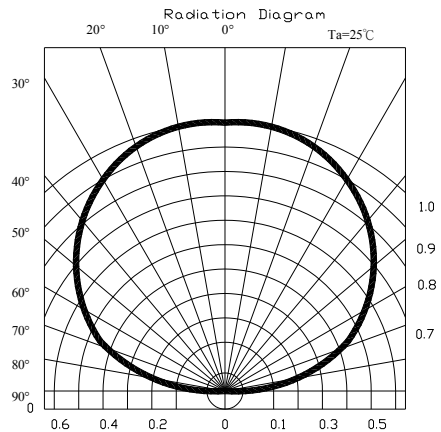
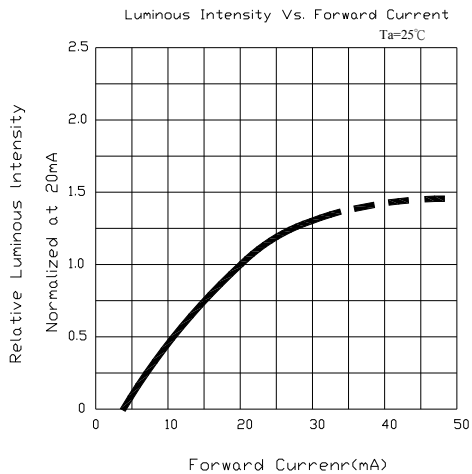
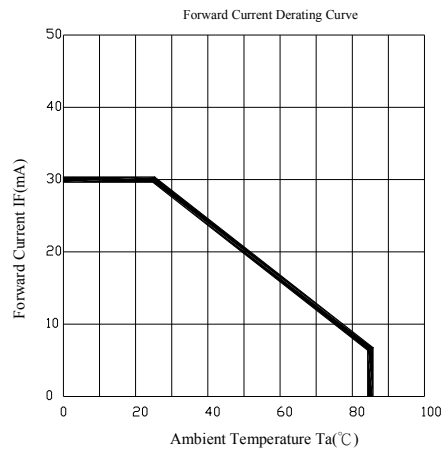
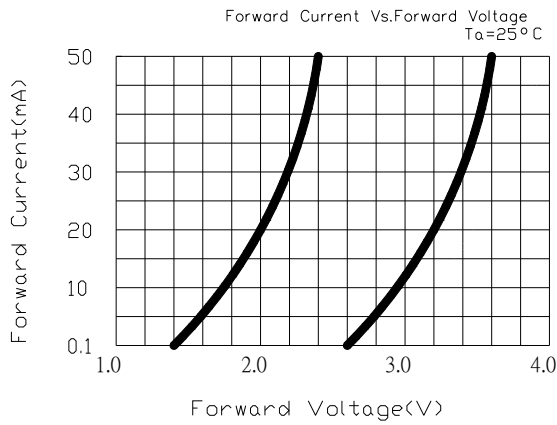
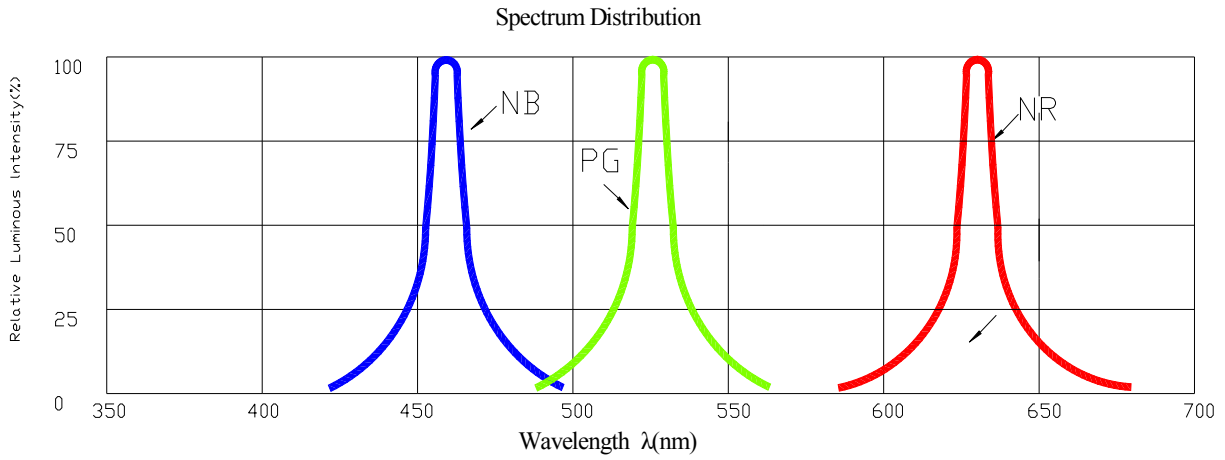


Note

1. All dimensions are in millimeters.

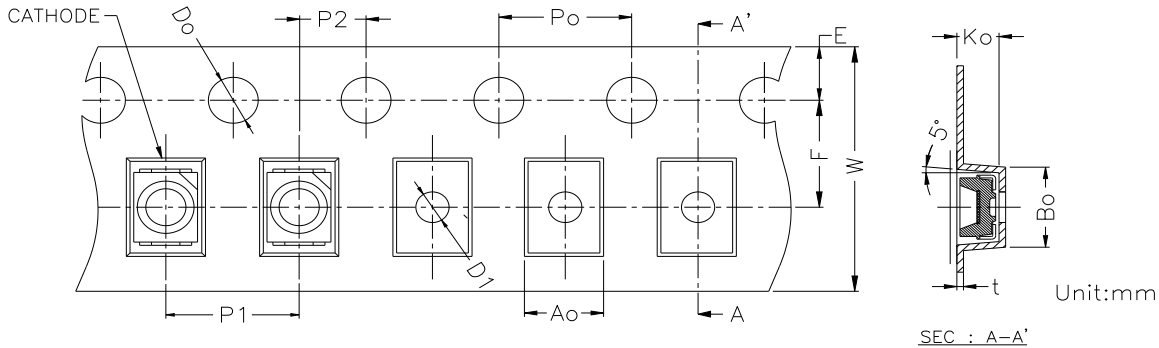
2. Tolerances unspecified are $\pm 0.1\text{mm}$.

Typical Electro-Optical Characteristics Curves



Carrier Tape Dimensions: Loaded quantity 2000PCS per reel

Packing Size													
Item	W	P1	E	F	Do	D1	Po	10Po	P2	Ao	Bo	Ko	t
Spec.	8.00	4.00	1.75	3.50	1.50	1.00	4.00	40.00	2.00	2.95	3.73	2.12	0.33
Tolerance	±0.20	±0.10	±0.10	±0.05	+0.10 -0.00	±0.05	±0.05	±0.20	±0.05	±0.10	±0.10	±0.10	±0.05



Precautions For Use

- Over-Current-Proof
 - Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change. (Burn out will happen)
- Storage
 1. Do not open moisture proof bag before the products are ready to use.
 2. The LEDs should be used within one month. Before opening the package, the LEDs should be kept at 25°C or less and 30%RH or less.
 3. After opening the package, the LEDs should be kept at 30%RH or less.
 4. The LEDs should be used within 24 hours (1 day) after opening the package.
 5. If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage conditions, baking treatment should be performed using the following conditions. Baking treatment : 70±5°C for 72 hours.
 6. In order to ensure 100% yield rate, it's recommended baking products in 70±5°C for 2 hours before Reflow process and using in 6 hours.

Reliability Test Items And Conditions

No.	Items	Test Condition	Test Hours/Cycles	Sample Size
1	Solder Heat	TEMP : 245°C±5°C	5 sec/3cycles	48 pcs
2	Temperature Cycle	90°C ~ 25°C ~ -30°C ~ 25°C 30m 5m 30m 5m	300Cycles	48 pcs
3	Thermal Shock	100°C ~ -55°C 10m 10m	100Cycles	48 pcs
4	Operation Life	If=20mA	1000 Hrs	48 pcs
5	High Temperature Storage	Temp:90°C	1000Hrs	48 pcs
6	Low Temperature Storage	Temp:-30°C	1000Hrs	48 pcs
7	High Temperature/High Humidity	80°C / R.H80%	1000Hrs	48 pcs