



SPECIFICATION FOR SURFACE MOUNTED LED

Company Name: _____

Customer No.: _____

Part No.: SA-3535-3-03-RGBW/2.8

Date: _____

Remarks: _____

CUSTOMER APPROVED BY				
Department				
Signature				
Date				

	APPROVED BY	CHECKED BY	PREPARED BY
Signature			
Date			

工厂名称: 深圳市锐拓显示技术有限公司

Factory Name: SHENZHEN RETOP LED DISPLAY CO.,LTD

工厂地址: 深圳市宝安区石岩街道应人石文稻科技园 D 栋

Factory Address: D Block. Wentao Technology Park. ShiyanTown. Baoan District. Shenzhen.China

TEL:

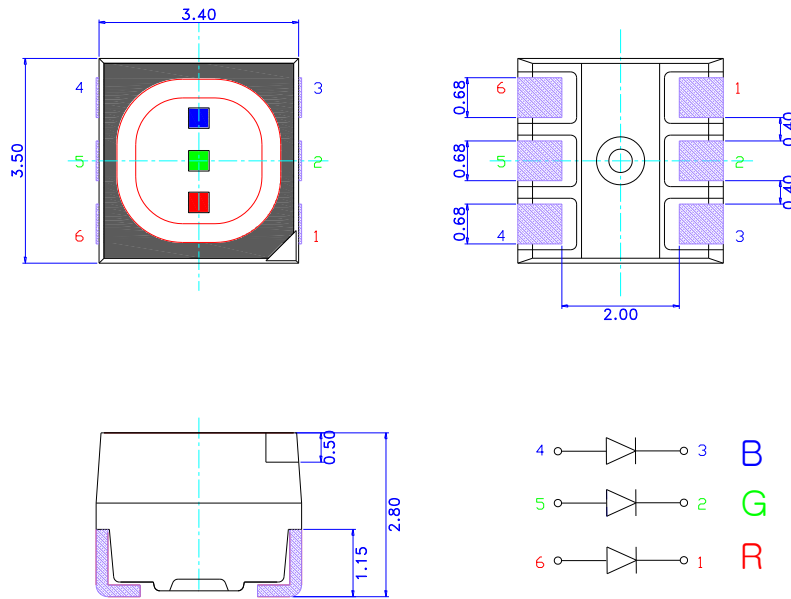
FAX:

HTTP:

■ Device Selection Guide:

Part No.	SMD Size	Emitted Color	Lens Color
SA-3535-3-03-RBGW	3.5X3.5X2.8mm	Red/ Green /Blue	White Diffused

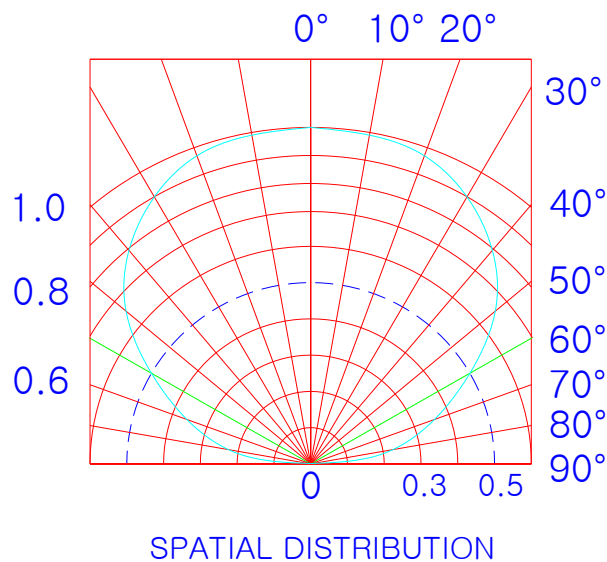
■ Outline Dimension:



NOTES:

1. All dimensions are in millimeters (inches);
2. Tolerances are $\pm 0.2\text{mm}$ unless otherwise noted.

■ View Angle:



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■ Typical Electrical & Optical Characteristics(Ta=25°)

Items	Symbol	Condition	Device	Min	Typ	Max	Unit
Forward Voltage	VF	If=20mA	Red	---	2.1	---	V
		If=20mA	Green	---	3.2	---	
		If=20mA	Blue	---	3.2	---	
Reverse Current	IR	VR =5V		---	---	5	μ A
Dominant Wavelength	λ d	If=20mA	Red	---	620	---	nm
		If=20mA	Green	---	521	---	
		If=20mA	Blue	---	470	---	
Luminous Intensity	Iv	If=20mA	Red	---	660	---	mcd
		If=20mA	Green	---	1320	---	
		If=20mA	Blue	---	290	---	
View Angle	2θ 1/2	If=20mA		---	120	---	Deg

■ Absolute Maximum Ratings (Ta = 25°C)

Items	Symbol	Absolute maximum Rating			Unit
		Red	Green	Blue	
Power Dissipation	PD	105	125	120	mW
Forward Current(DC)	IF	30	30	30	mA
Peak Forward Current	IFP	115	120	120	mA
Reverse Voltage	VR	5			V
Operation Temperature	Topr	- 40~ + 85			°C
Storage Temperature	Tstg	- 40~ + 85			°C

NOTE::

1/10 Duty Cycle, 0.1 ms Pulse Width.

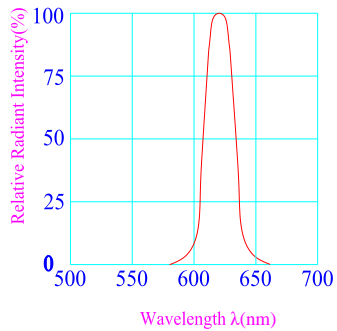
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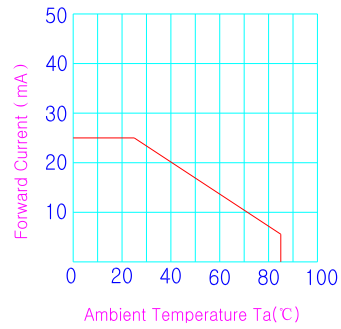
■ Typical Electrical/Optical Characteristics Curves:

Red:

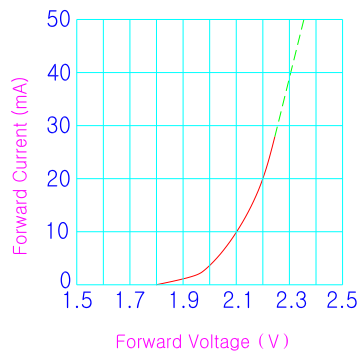
Relative Intensity Vs. Wavelength (Ta=25°C)



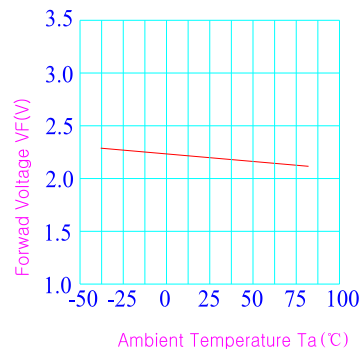
Forward Current Vs. Ambient Temperature



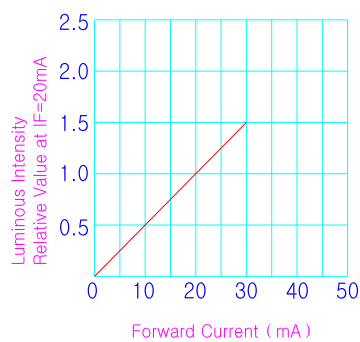
Forward Current Vs. Forward Voltage



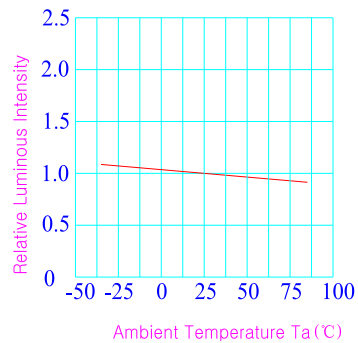
Forward Voltage Vs. Ambient Temperature



Luminous Intensity Vs. Forward Current



Luminous Intensity Vs. Ambient Temperature



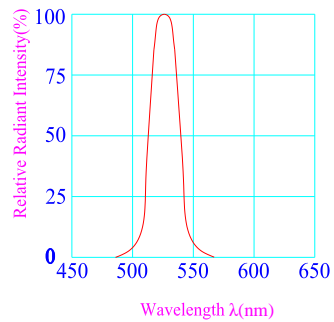
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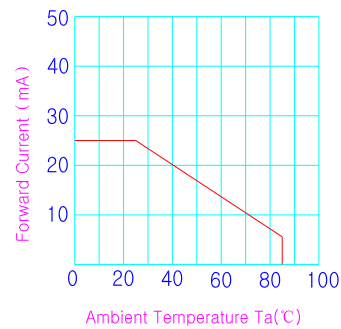
■ Typical Electrical/Optical Characteristics Curves:

Green:

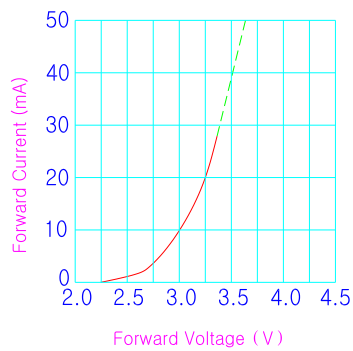
Relative Intensity Vs. Wavelength (Ta=25°C)



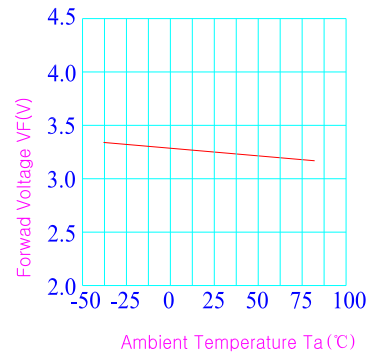
Forward Current Vs. Ambient Temperature



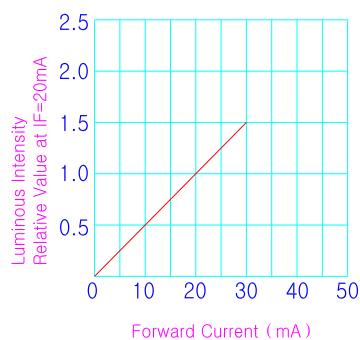
Forward Current Vs. Forward Voltage



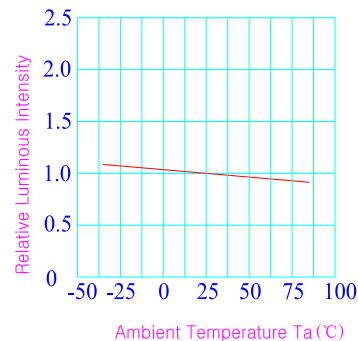
Forward Voltage Vs. Ambient Temperature



Luminous Intensity Vs. Forward Current



Luminous Intensity Vs. Ambient Temperature



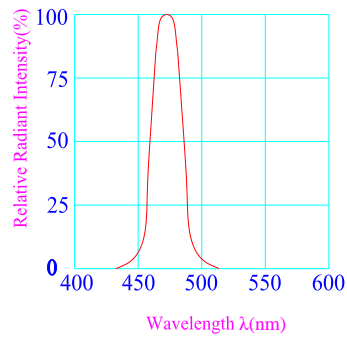
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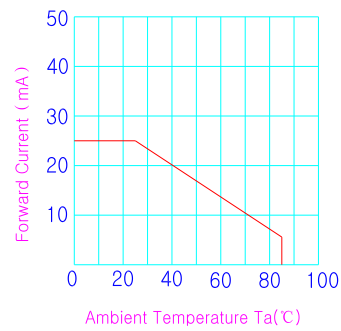
■ Typical Electrical/Optical Characteristics Curves:

Blue:

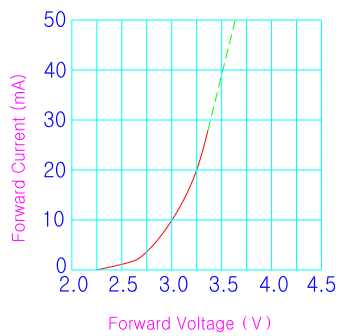
Relative Intensity Vs. Wavelength (Ta=25°C)



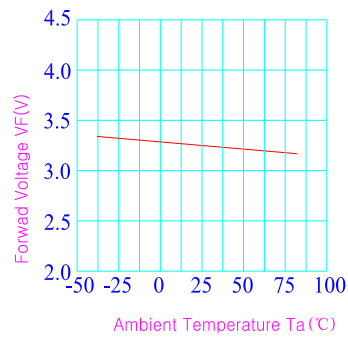
Forward Current Vs. Ambient Temperature



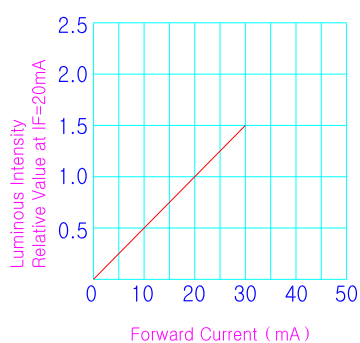
Forward Current Vs. Forward Voltage



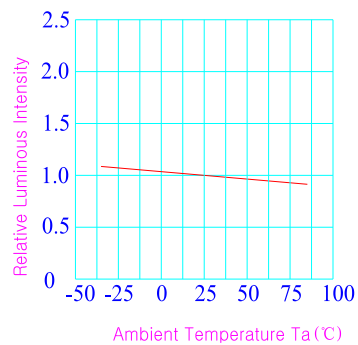
Forward Voltage Vs. Ambient Temperature



Luminous Intensity Vs. Forward Current



Luminous Intensity Vs. Ambient Temperature



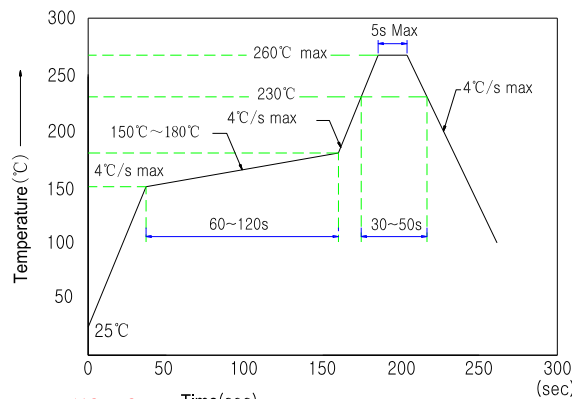
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■ Reliability Test :

Classification	Test Item	Test Conditions	Duration	Units Tested	Number of Damaged
Life Test	Operating Life Test	Ta =25°C ± 5°C, RH=55 ± 20%RH, IF=30mA	1000hrs	22	0/22
Environment Test	High Temperature Storage	Ta =100°C ± 10°C	1000hrs	22	0/22
	Low Temperature Storage	Ta = - 40°C ⁺³ / ₋₅ °C	1000hrs	22	0/22
	Temp & Humidity Storage	Ta =85°C ⁺⁵ / ₋₃ °C RH=85 ⁺⁵ / ₋₁₀ %RH	1000hrs	22	0/22
	Thermal Shock Test	Ta= - 40°C ⁺⁵ / ₋₃ °C ~ 100°C ⁺³ / ₋₅ °C T=5min - 5min	100 Cycles	22	0/22
	Temperature Cycling Test	Ta= - 40 ⁺³ / ₋₅ °C ~25°C ~ 100 ⁺⁵ / ₋₃ °C ~25°C T=30min-5min-30min- 5min	10Cycles	22	0/22

Reflow Soldering Profile For Lead-free SMT Process.



NOTES:

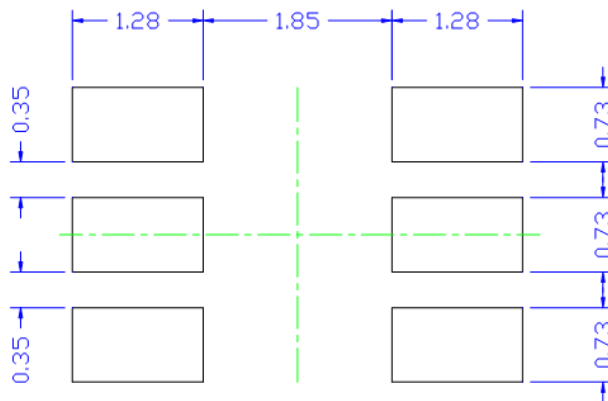
1. We recommend the reflow temperature 245°C (+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

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■ Recommended Soldering Pattern:

(Units:mm)



■ Tape Specifications:

(Units:mm)

