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SPECIFICATION

PART NO. : LT8A63-S3-RGB-GZ54

1204 SMD CHIP LED

PRELIMINARY



Approved by

Checked by

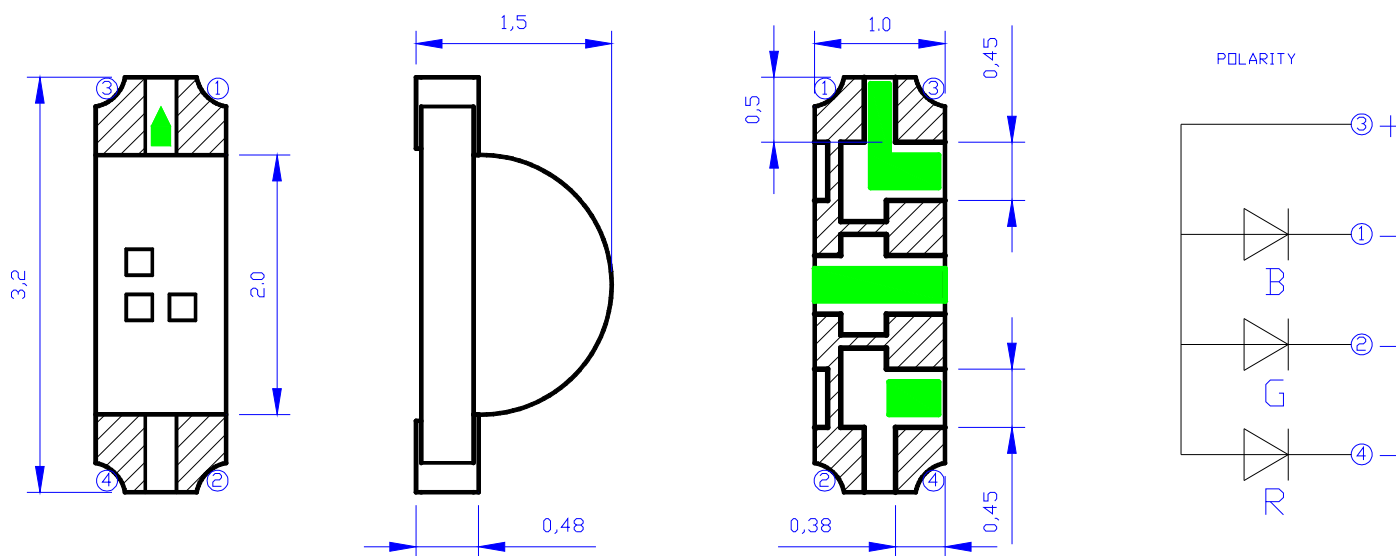
Prepared by

Yue

Lian

JinHui

Package Dimensions



Notes:

- 1. All dimensions are in mm.
- 2. Tolerance is ± 0.2 mm unless otherwise noted.

Description

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LT8A63-S3-RGB-GZ54	AlGaInP	Red	Water transparent
	InGaN/GaN	Green	
	InGaN/Sapphire	Blue	

Absolute Maximum Ratings at Ta=25 °C

Parameter	Symbol	Rating			Unit
		R	G	A	
Power Dissipation	PD	44	44	44	mW
Reverse Voltage	VR	5			V
D.C. Forward Current	If	20			mA
Operating Temperature Range	Topr.	-40 to +85			°C
Storage Temperature Range	Tstg.	-40 to +100			°C
Soldering Temperature	Tsld.	Max.260°C for 3 sec Max.			
Peak pulsing current (1/8 duty f=1kHz)	Ifp	100			mA

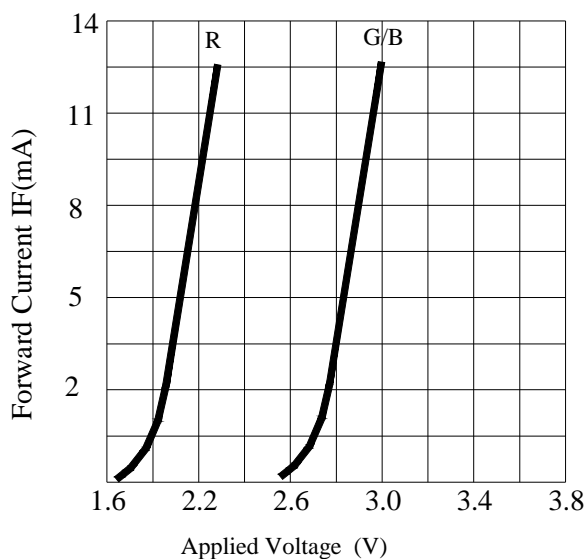
Electrical and Optical Characteristics:

Parameter	Symbol	Color	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	IV	R	If=5mA	30	--	80	mcd
		G		200	--	400	
		B		40	--	80	
Forward Voltage	Vf	R	If=5mA	1.6	--	2.4	V
		G		2.5	--	3.0	
		B		2.5	--	3.0	
Dominant Wavelength	λ_d	R	If=5mA	615	---	630	nm
		G		520	---	530	
		B		462	---	470	
Reverse Current	Ir		Vr=5v			1	μA
Viewing Angle	2 θ 1/2		If=5mA		120		deg

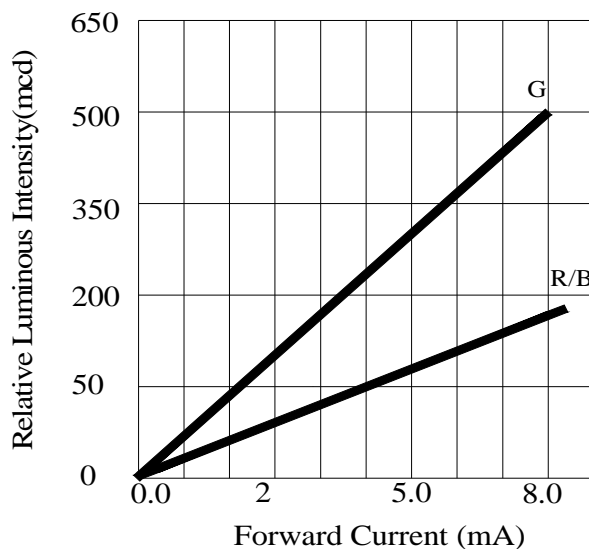
Notes:1. Tolerance of Luminous Intensity is $\pm 10\%$ 2. Tolerance of Forward Voltage is $\pm 0.05V$ 3. Tolerance of Dominant Wavelength is $\pm 1nm$

Typical Electrical/Optical Characteristic Curves

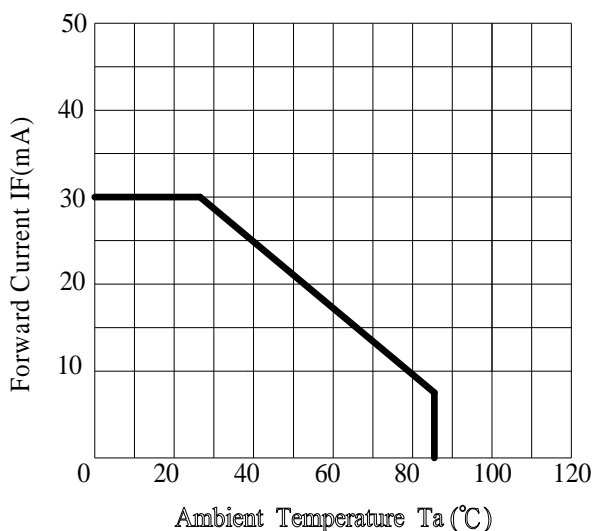
(25°C Ambient Temperature Unless Otherwise Noted)



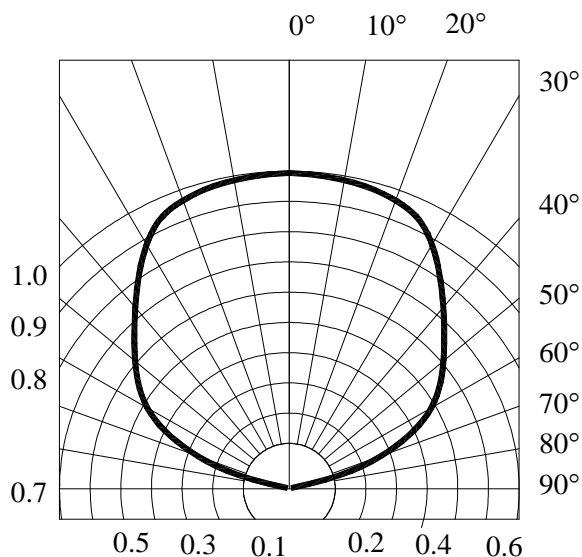
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current



Radiation Diagram

Precautions in Use:

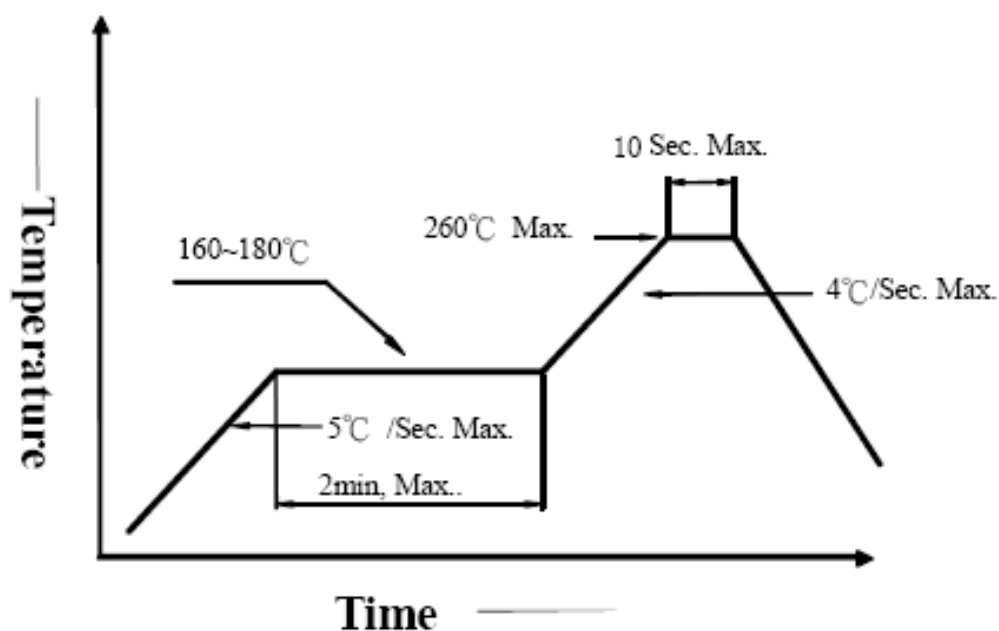
Storage Profile

1. Do not open the moisture proof bag before ready to use the LEDs.
2. The LEDs should be kept at 30°C or less and 60%RH or less before opening the package. The max. storage period before opening the package is 1 year.
3. After opening the package, the LEDs should be kept at $30^{\circ}\text{C}/40\%\text{RH}$ or less, and it should be used within 7 days
4. If the LEDs be kept over the condition of 3, baking is required before mounting. Baking condition as below: $60\pm 5^{\circ}\text{C}$ for 24 hours

Hand Soldering Profile

The temperature of the iron should be lower than 300°C and soldering within 3sec per solder-pad is to be observed.

Reflow Temp/Time:



Notes:

1. Reflow soldering should not be done more than two times.
2. Do not put stress on the LEDs when soldering.
3. Do not warp the circuit board before it have been returned to normal ambient conditions after soldering.

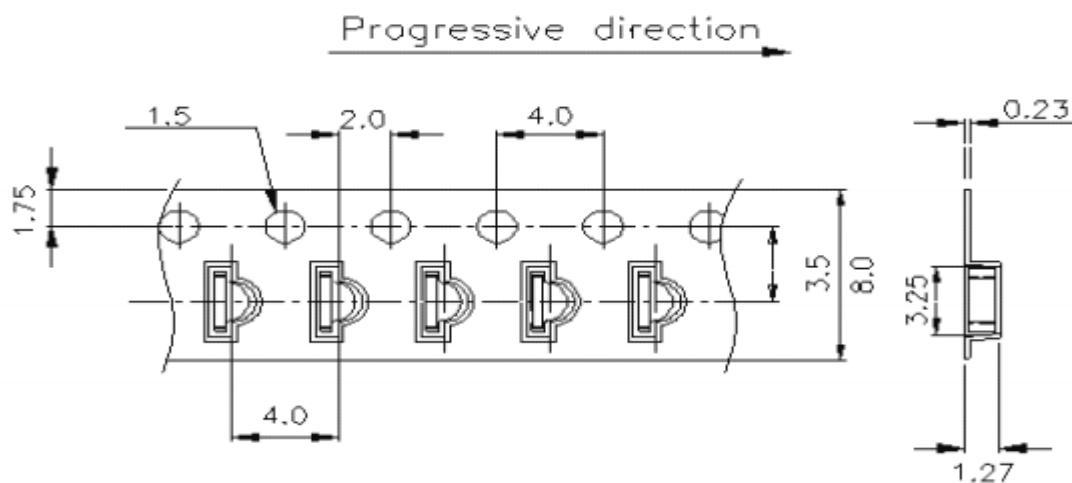
Sulfur-sensitive

- I There is silver-plated metal part on the inner/outer side of the outer package.
If exposed to the condition with corrosive gas, the silver plating surface may go bad, which will affect soldering strength and optical properties. Therefore, after opening it must be kept in a sealed container, etc.**
- I Materials contain sulfur component (gasket, adhesive, etc.) may have bad effects on the surface of the coating, so please do not use such materials in the product.**
- I In cardboard boxes and rubber, even in the atmosphere may contain minute amount of corrosive gases; In addition, the resin material may also contain halogen which has a bad effect on the surface of the coating.**
- I Even if the soldering installation and product assembly finished, by the effect of corrosive gas generated by relative materials of LED and external injected, the coating surface may go bad, so it is necessary to design the product taking into account the above factors.**
- I If requires, it is best to use a silicone washer, but be aware that low molecular silicone may cause the product poor contact.**
- I Keep the product in location where has less temperature change, because moisture condensation would be generated under a condition of strong temperature change.**

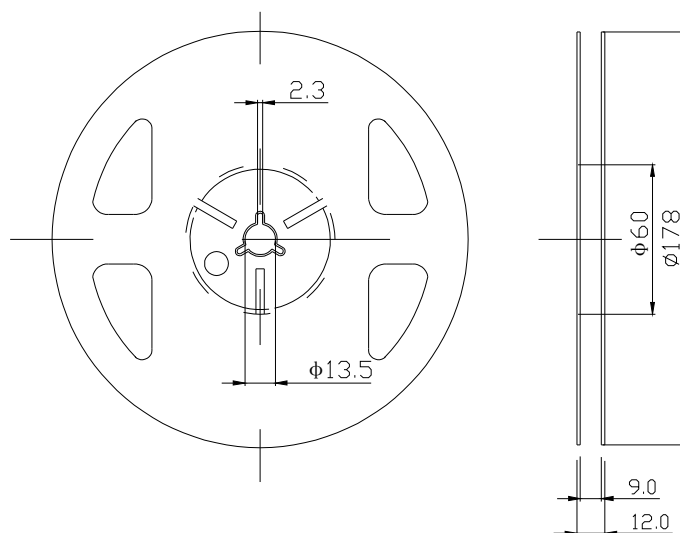
DISCLAIMER

- 1. Our department reserves the right(s) on the adjustment of product material mix for the specification.**
- 2.The product meets our department published specification for a period of twelve (12) months from date of shipment.**
- 3.The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.**
- 4.When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. Our department assumes no responsibility for any damage resulting from the use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.**
- 5.These specification sheets include materials protected under copyright of our department.
Reproduction in any form is prohibited without obtaining our department's prior consent.**
- 6.This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death.**

Dimensions for Tape



Dimensions for Reel



Notes:

1. Empty component pockets are sealed with top cover tape;
2. 3,000pcs/Reel.