

SE-5060RGB

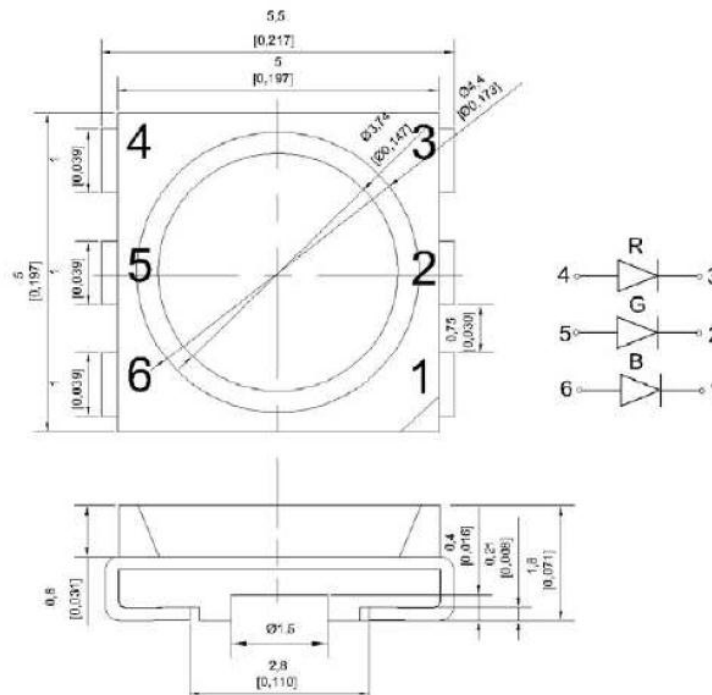
**Features**

- CHIPS CAN BE CONTROLLED SEPARATELY.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE: 1000PCS / REEL.

**Description**

The Red source color devices are made with DH GaAsP/ GaP on GaAs substrate Light Emitting Diode.  
 The Green source color devices are made with GaP on SiC Light Emitting Diode.  
 The Blue source color devices are made with GaN on SiC Light Emitting Diode.  
 Static electricity and surge damage the LEDs.  
 It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.  
 All devices, equipment and machinery must be electrically grounded.

**Package Dimensions**



**Notes:**

1. All dimension units are millimeters.
2. All dimension tolerance is  $\pm 0.2$ mm unless otherwise noted.
3. An epoxy meniscus may extend about 1.5mm down the leads.
4. Burr around bottom of epoxy may be 0.5mm max..

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Lens Type	Iv (mcd) @ 20mA						Viewing Angle
	RED (GaAsP/GaP)		GREEN (GaP)		BLUE (GaN)		
	Min.	Typ.	Min.	Typ.	Min.	Typ.	2θ1/2
WATER CLEAR	140	200	570	800	140	200	100°

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Red		Green		Blue		Units	Test Conditions
		Min.	Typ.	Min.	Typ.	Min.	Typ.		
λD	Dominate Wavelength	621	624	515	518	469	471	nm	IF=20mA
C	Capacitance		35		45		110	pF	VF=0V;f=1MHz
VF	Forward Voltage	1.6	1.9	3.0	3.2	3.0	3.2	V	IF=20mA
IR	Reverse Current		5		5		5	uA	VR = 5V

Absolute Maximum Ratings at TA=25°C

Parameter	Red	Green	Blue	Units
Power dissipation	75	90	110	mW
DC Forward Current	30	25	30	mA
Peak Forward Current [1]	185	150	160	mA
Reverse Voltage	5	5	5	V
Operating/Storage Temperature	-40°C TO +85°C			

Notes:

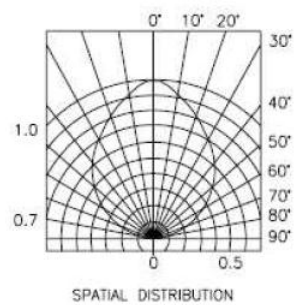
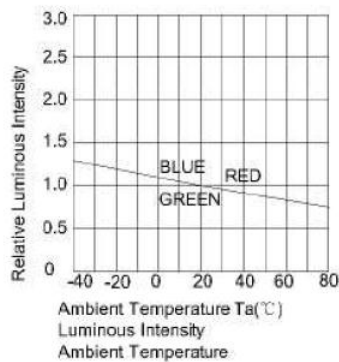
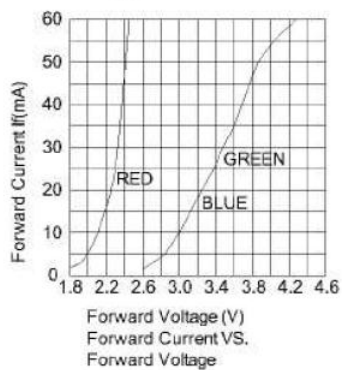
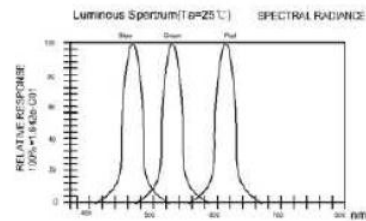
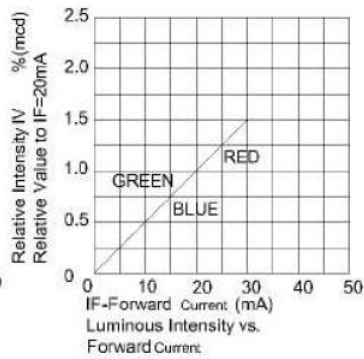
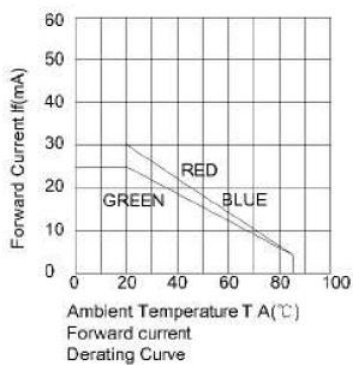
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

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### Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.  
 Confidence level :90%      LTPD :10%

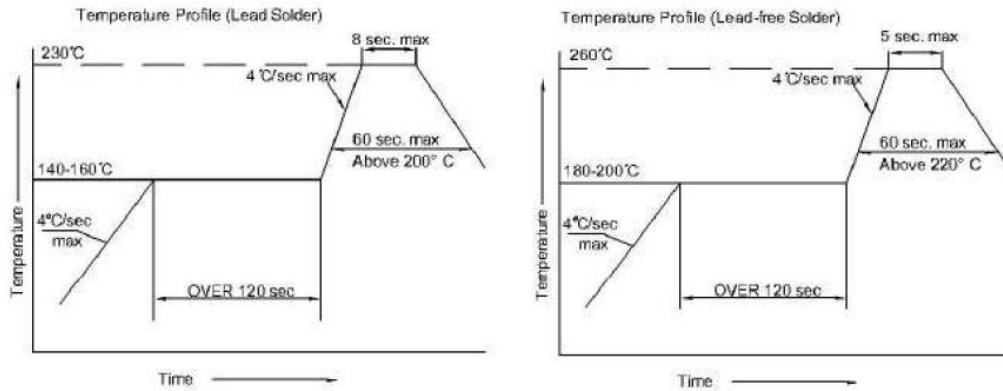
No.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Rc
1	Reflow	Temp:240°C±5°C Min.5 sec.	6 Min.	22Pcs.	0/1
2	Temperature Cycle	H:+100°C 15 min. ↕ 5 min. L:-40°C 15 min.	300 Cycles	22Pcs.	0/1
3	Thermal Shock	H:+100°C 5 min. ↕ 10 sec. L:-10°C 5 min.	300 Cycles	22Pcs.	0/1
4	High Temperature Storage	Temp.:100°C	1000Hrs.	22Pcs.	0/1
5	Low Temperature Storage	Temp.: -55°C	1000Hrs.	22Pcs.	0/1
6	DC Operating Life	I <sub>f</sub> =20mA	1000Hrs.	22Pcs.	0/1
7	High Temperature/High Humidity	85°C/R.H85%	1000Hrs.	22Pcs.	0/1



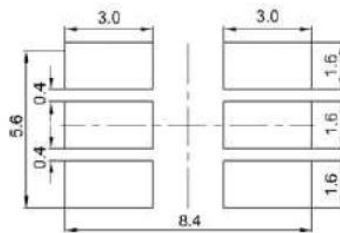
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**SMT Reflow Soldering Instructions**

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



**Recommended Soldering Pattern  
(Units : mm)**



**Tape Specifications  
(Units : mm)**

