

1.6 x 1.5 x 0.6mm Red & Blue Chip LED

OSRB0603C1C

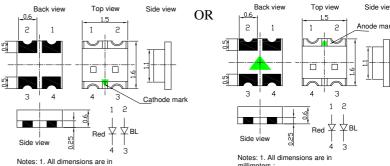
■Features

- Bi-Color
- Super high brightness of surface mount LED
- Water Clear Flat Mold
- Compact package outline (LxWxT) of 1.6mm x 1.5mm x 0.6mm
- Compatible to IR reflow soldering.

■Applications

- Backlighting (switches, keys, etc.)
- Marker lights (e.g. steps, exit ways, etc.)

■Outline Dimension



millimeters;
2. Tolerance is ± 0.10 mm unless otherwise noted.

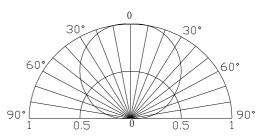
2. Tolerance is ± 0.10 mm unless otherwise noted.

■Absolute Maximum Rating

(Ta=25°C)

Item	Symbo	Val	Unit		
Item	1	Red	Blue	Oilit	
DC Forward Current	I_{F}	30	20	mA	
Pulse Forward Current*	I_{FP}	100	100	mA	
Reverse Voltage	V_R	5	5	V	
Power Dissipation	P_D	78	72	mW	
Operating Temperature	Topr	-40 ~	°C		
Storage Temperature	Tstg	-40~	°C		
Lead Soldering Temperature	Tsol	260°C /	=		

■Directivity



■Electrical -Optical Characteristics

(Ta=25°C)

	per Color		$V_{F}(V)$		$I_R(\mu A)$	Iv(mcd)		λD(nm)			2θ1/2(deg)			
Part Number			Min.	Тур.	Max.	Max.	Min.	Тур.	Max.	Min.	Тур.	Max.	Typ.	
				I _F =5mA		V _R =5V	I _F =5mA							
OCDB0602C1C	Red	HR		1.6	2.0	2.4	10	-	40	-	620	630	640	120
OSRB0603C1C	Blue	BL		2.6	3.0	3.4	10	-	20	-	460	465	475	120

^{*1} Tolerance of measurements of dominant wavelength is ±1nm

ISO 9001: 2008







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^{*}Pulse width Max 0.1ms, Duty ratio max 1/10

^{*2} Tolerance of measurements of luminous intensity is ±15%

^{*3} Tolerance of measurements of forward voltage is±0.1V



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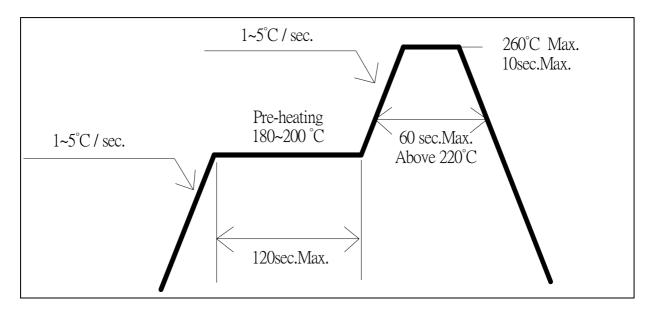
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VER.A.2

■ Soldering Conditions

	Reflow Soldering	Hand Soldering			
Pre-Heat	180 ∼ 200°C				
Pre-Heat Time	120 sec. Max.				
Peak temperature	260°C Max.	Temperature	350°C Max.		
Dipping Time	10 sec. Max.	Soldering time	3 sec. Max.		
Condition	Refer to Temperature-profile		(one time only)		

• Reflow Soldering Condition(Lead-free Solder)



- *Recommended soldering conditions vary according to the type of LED
- *Although the recommended soldering conditions are specified in the above table, reflow, or hand soldering at the lowest possible temperature is desirable for the LEDs.
- *A rapid-rate process is not recommended for cooling the LEDs down from the peak temperature.
- •All SMD LED products are pb-free soldering available.
- Occasionally there is a brightness decrease caused by the influence of heat or ambient atmosphere during air reflow. It is recommended that the User use the nitrogen reflow method.
- Repairing should not be done after the LEDs have been soldered. When repairing is unavoidable a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.
- Reflow soldering should not be done more than two times.
- When soldering, do not put stress on the LEDs during heating.
- After soldering, do not warp the circuit board.

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■ Cautions:

- 1. After open the package, the LED's floor life is 1 year under 30° C or less and 60%RH or less (MSL:2).
- 2. Heat generation must be taken into design consideration when using the LED.
- 3. Power must be applied resistors for protection, over current would be caused the optic damage to the devices and wavelength shift.
- 4. Manual tip solder may cause the damage to Chip devices, so advised that heat of iron should be lower than 15W with temperature control under 5 seconds at 230-260 deg. C. (The device would be got damage in re working process, recommended under 5 seconds at 230-260 deg. C)
- 5. All equipment and machinery must be properly grounded. It is recommended to use a wristband or anti-electrostatic glove when handing the LED.
- 6. Use IPA as a solvent for cleaning the LED. The other solvent may dissolve the LED package and the epoxy, Ultrasonic cleaning should not be done.
- 7. Damaged LED will show unusual characteristics such as leak current remarkably increase, turn-on voltage becomes lower and the LED get unlight at low current.
- 8. OPTOSUPPLY will not do 4M change without advance consultation.







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