

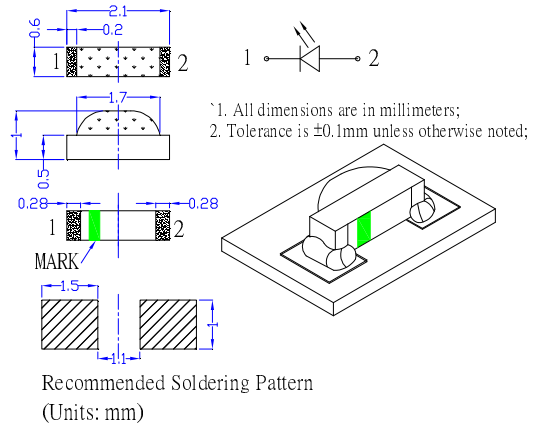
■Features

- Single chip
- 2.1x0.6x1.0mm(0802) standard package.
- Suitable for all SMT assembly methods.
- Compatible with infrared and vapor phase reflow solder process.
- This product doesn't contain restriction Substance, comply ROHS standard.
- Compatible with automatic placement equipment.

■Applications

- Automotive : Dashboards, stop lamps, turn signals.
- Backlighting : LCDs, Key pads advertising.

■Outline Dimension



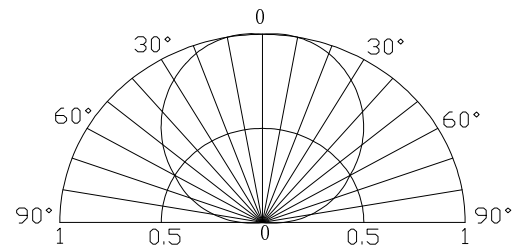
■Absolute Maximum Rating

($T_a=25^\circ\text{C}$)

Item	Symbol	Value		Unit
		W5/B5/G5	R5/Y5 /G8/O5	
DC Forward Current	I_F	25	25	mA
Pulse Forward Current*	I_{FP}	100	100	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	108	78	mW
Operating Temperature	T_{opr}	-40 ~ +85		$^\circ\text{C}$
Storage Temperature	T_{stg}	-40~ +85		$^\circ\text{C}$
Lead Soldering Temperature	T_{sol}	260 $^\circ\text{C}$ /10sec		-

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

■Directivity



■Electrical -Optical Characteristics

($T_a=25^\circ\text{C}$)

Part Number	Color		V_F (V)			I_R (μA)	I_v (mcd)			λ_D (nm)			2 θ 1/2(deg)
			Min.	Typ.	Max.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.
			$I_F=20\text{mA}$			$V_R=5\text{V}$	$I_F=20\text{mA}$						
OSW50802C1E	White	W5	2.8	3.0	3.4	10	300	550	-	6500K	8300K	15000K	120
OSB50802C1E	Blue	B5	2.8	3.0	3.4	10	30	70	-	460	465	475	120
OSG50802C1E	True Green	G5	2.8	3.0	3.4	10	400	700	-	518	525	530	120
OSG80802C1E	Yellow Green	G8	1.8	2.0	2.4	10	25	50	-	565	570	575	120
OSY50802C1E	Yellow	Y5	1.8	2.0	2.4	10	70	150	-	585	590	595	120
OSO50802C1E	Orange	O5	1.8	2.0	2.4	10	70	150	-	600	605	610	120
OSR50802C1E	Red	R5	1.8	2.0	2.4	10	70	150	-	617	625	630	120

*1 Tolerance of measurements of chromaticity coordinate is $\pm 10\%$

*2 Tolerance of measurements of dominant wavelength is $\pm 1\text{nm}$

*3 Tolerance of measurements of luminous intensity is $\pm 15\%$

*4 Tolerance of measurements of forward voltage is $\pm 0.1\text{V}$

■ **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.