OptoSupply
Light It Up

3.5x2.8x1.9mm 850nm & 940nm Infrared SMD LED

OSIRXDS2C1A-I3I5

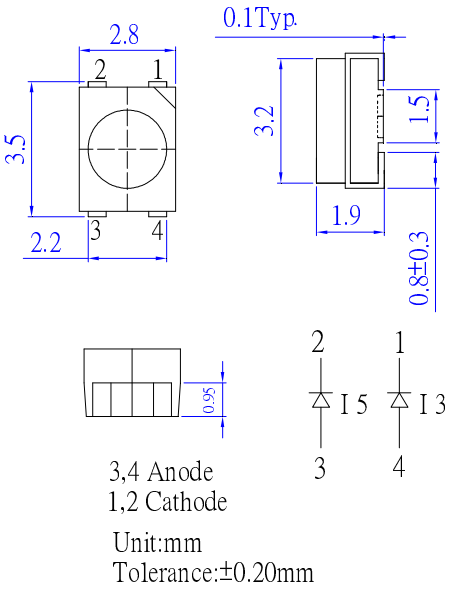
▪Features

- High Luminous PLCC4 Top SMD LEDs
- 3.5x2.8x1.9mm Standard Directivity
- Superior Weather-resistance
- UV Resistant Silicone
- Water Clear Type

▪Applications

- Automatic Control System
- Photo Detector
- Computer I/O Peripheral
- Other Lighting

▪Outline Dimension



3,4 Anode
1,2 Cathode

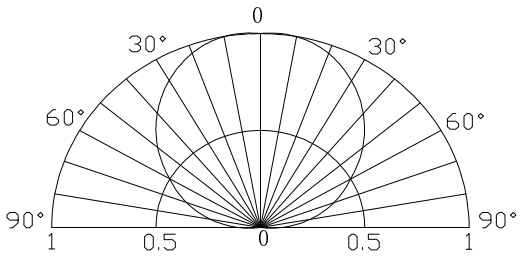
Unit:mm
Tolerance:±0.20mm

▪Absolute Maximum Rating (Ta=25℃)

Item	Symbol	Value		Unit
		I3	I5	
DC Forward Current	I_F	70	100	mA
Pulse Forward Current*	I_{FP}	700	1000	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	126	180	mW
Operating Temperature	Topr	-30 ~ +85		℃
Storage Temperature	Tstg	-40~ +100		℃
Lead Soldering Temperature	Tsol	260℃/5sec		-

*Pulse width Max.10ms Duty ratio max 1/10

▪Directivity



▪Electrical -Optical Characteristics (Ta=25℃)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V_F (I3)	I_F=50mA	-	1.6	1.8	V
	V_F (I5)	I_F=50mA	-	1.6	1.8	V
DC Reverse Current	I_R	V_R=5V	-	-	10	μA
Peak Wavelength	λ_p (I3)	I_F=50mA	-	850	-	nm
	λ_p (I5)	I_F=50mA	-	940	-	nm
Radiant Intensity	Ie (I3)	I_F=50mA	15	20	-	mW/Sr
	Ie (I5)	I_F=50mA	5	10	-	mW/Sr
50% Power Angle	$2\theta_{1/2}$	I_F=50mA	-	120	-	deg

*1 Tolerance of dominant wavelength is ±1nm
*2 Tolerance of luminous intensity is ±15%

Precautions in Use for Surface Mount Diode

■ Storage

· Storage Conditions

Before opening the package:

The LEDs should be kept at 30°C or less and 60%RH or less. The LEDs should be used within a year. When storing the LEDs, moisture proof packaging with absorbent material (silica gel) is recommended.

· After opening the package:

Soldering should be done right after opening the package (within 24hrs).

Keeping of a fraction, sealing and Temperature: 5~40℃ Humidity: Less than 30%.

If the package has been opened more than 1 week or the color of desiccant changes, components should be dried for 10-12hrs, at 60±3℃.

· Optosupply LED electrode sections are comprised of a silver plated copper alloy. The silver surface may be affected by environments which contain corrosive gases and so on. Please avoid conditions which may cause the LED to corrode, tarnish or discolor. This corrosion or discoloration may cause difficulty during soldering operations. It is recommended that the User use the LEDs as soon as possible.

· Please avoid rapid transitions in ambient temperature, especially in high humidity environments where condensation can occur.

■ Soldering Heat Reliability (DIP):

IR Reflow soldering Profile

· 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.

· 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.**

Solder=Lead Free
Average ramp-up rate = 3ºC/sec. max.
Preheat temperature: 140º~180ºC
Preheat time = 120 sec. max.
Ramp-down rate = 6ºC/sec. max.
Peak temperature = 245ºC max.
Time within 3ºC of actual peak temperature = 25 sec. max.
Duration above 210ºC is 40 sec. max.