OptoSupply
Light It Up

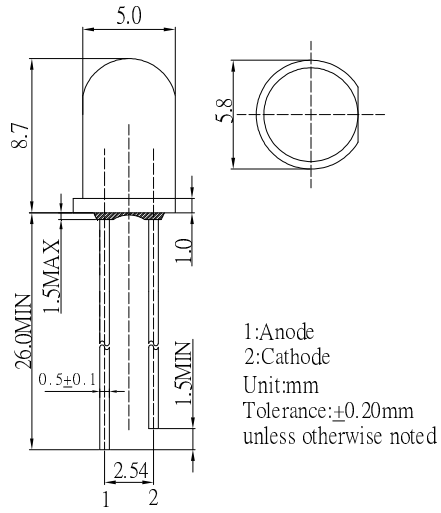
5mm 850nm Infrared LED

OSI3CA5111A

▪Features

- High Radiant Power LEDs
- 5mm Standard Directivity
- UV Resistant Epoxy
- Water Clear Type

▪Outline Dimension



▪Applications

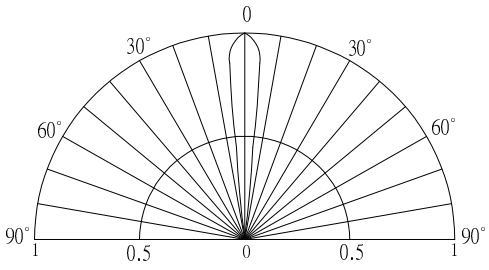
- IrDA
- Encoder
- Data Communication
- IR camera

▪Absolute Maximum Rating (Ta=25℃)

Item	Symbol	Value	Unit
DC Forward Current	I_F	70	mA
Pulse Forward Current*	I_{FP}	700	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	126	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	I_F=50mA	-	1.6	1.8	V
DC Reverse Current	I_R	V_R=5V	-	-	10	μA
Peak Wavelength	λ_p	I_F=50mA	-	850	-	nm
Radiant Intensity	Ie	I_F=50mA	150	220	330	mW/Sr
Radiant Power	P_O	I_F=50mA	15	30	45	mW
50% Power Angle	$2\theta_{1/2}$	I_F=50mA	-	15	-	deg

*1 Tolerance of measurements of Peak wavelength is ±1nm

*2 Tolerance of measurements of Radiant Power is ±15%

*3 Tolerance of measurements of forward voltage is ±0.1V

LAMP APPLICATION (PB FREE SOLDERJING)

Apply to LAMP (DIP) SERIES.

Description:

(1) Manual soldering (Solder Iron)

(1.1) Temperature at tip of the iron:350℃ Max.

(1.2) It's banned to load any stress on the resin during soldering.

(1.3) Soldering time: 3sec.Max.(one time only.)

(1.4) Leave 3mm of minimum distance from the base of the epoxy.

(2) Dip Soldering (Wave Soldering-Solder Bath)

(2.1) Leave 3mm of minimum distance from the base of the epoxy.
Soldering beyond the base of the tie bar (stand off) is recommended.

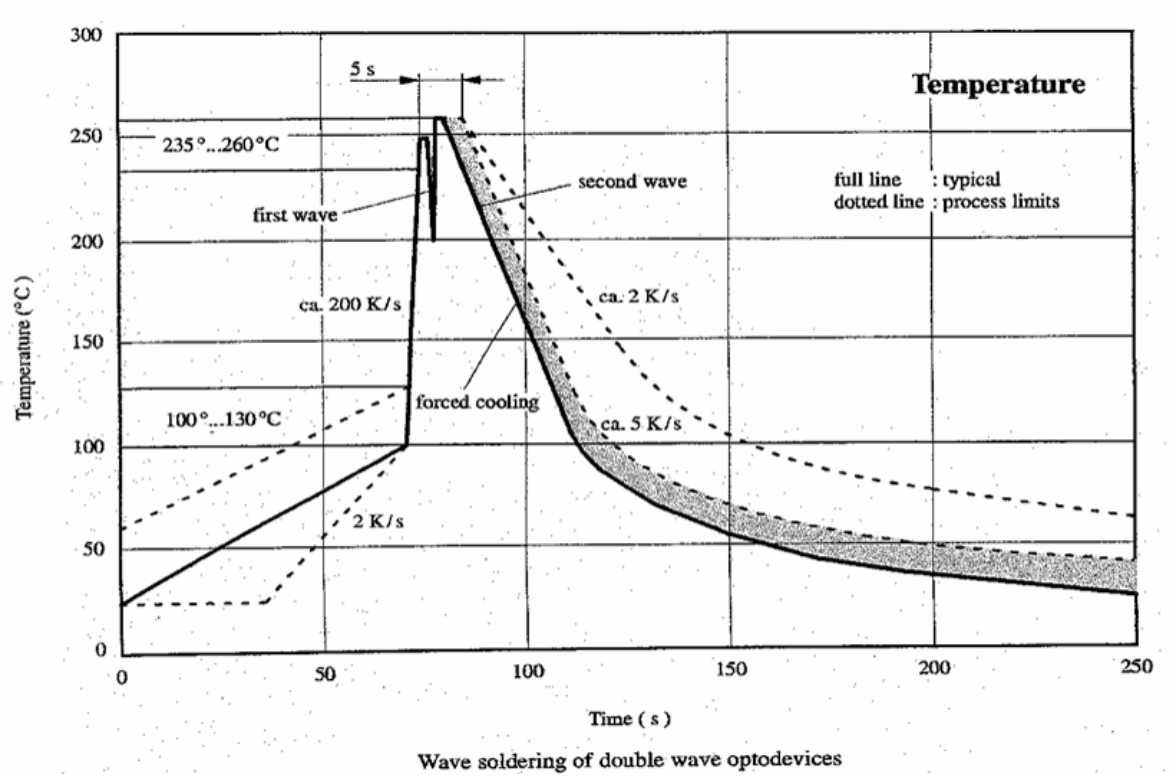
(2.2) When soldering, do not put stress on the LEDs during heating.

(2.3) Cutting the lead frames at high temperatures may cause LED failure.

(2.4) Never take next process until the component is cooled down to room temperature after reflow.

(2.5) After soldering, do not warp the circuit board.

(2.6) The recommended dip soldering profile is the following.



Wave soldering of double wave optodevices