







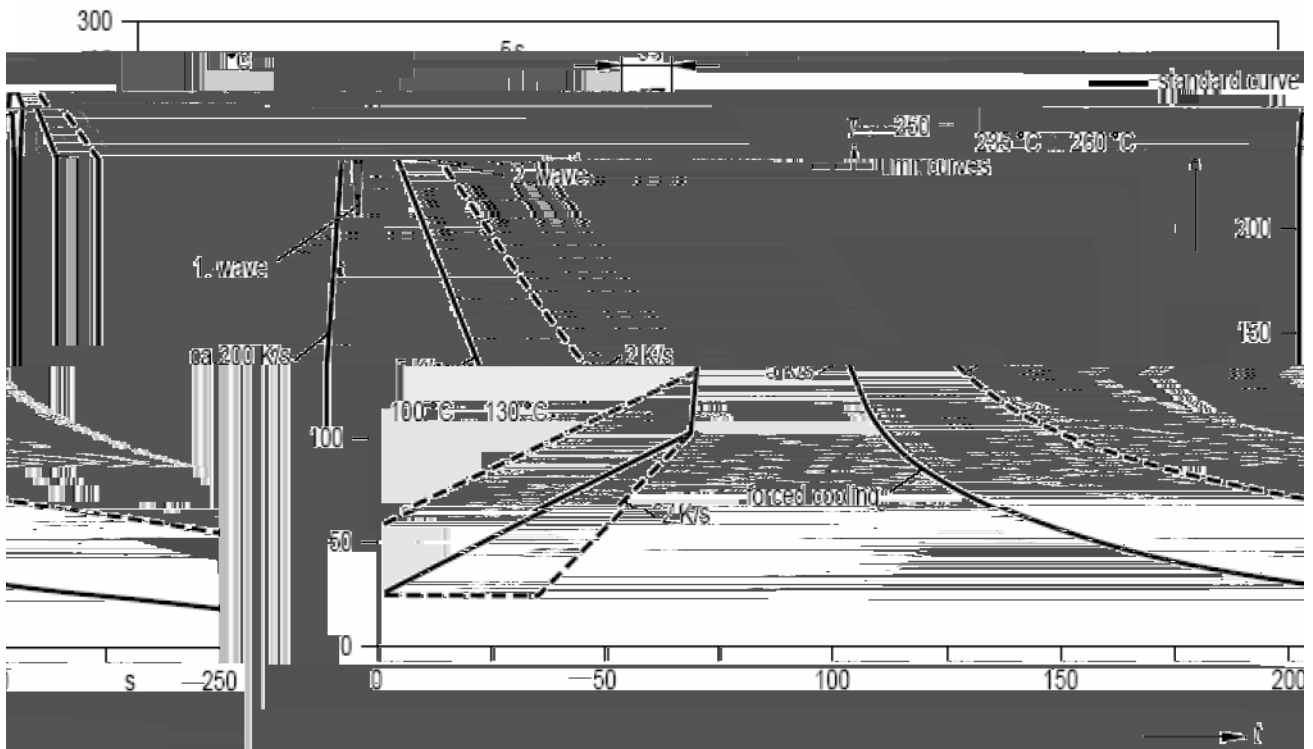
# LIGHT ELECTRONICS CO., LTD.

Collector- Emitter Saturation Voltage	$V_{CE(SAT)}$	---	---	0.4	V	$I_C=0.1\text{ mA}$ $E_e=1.0\text{mW/cm}^2$
Rise Time	$T_r$	---	15	---	$\mu\text{S}$	$V_{CC}=5\text{V}$ $L$ 1K $I_C=1\text{mA}$
Fall Time	$T_f$	---	15	---	$\mu\text{S}$	$V_{CC}=5\text{V}$ $L$ 1K $I_C=1\text{mA}$
Viewing angle	$\theta$	---	40	---	Deg.	---
Collector Dark Current	$I_C$	---	---	100	nA	$V_{CE}=10\text{V}$ $E$ $^2$
On State Collector Current	$I_{C(ON)}$	3.7	5.5	---	mA	$V_{CE}=5\text{V}$ $E_e=1.0\text{mW/cm}^2$ P

**Note:**

1.  $\theta_{1/2}$  is the off-axis angle at which the  $I_{C(ON)}$  is half the axial  $I_{C(ON)}$
2. The  $I_{C(ON)}$  guarantee should be added  $\pm 15\%$  tolerance.

**Recommended Wave Soldering Profile**



### Photo Transistor Diode Specification

●Commodity: Photo Transistor

●Ic(on) Bin Code ( $V_{CE}=5V$ ,  $E_e=1mW/cm^2$ ,  $\lambda_p=940nm$ )

BIN CODE	Min. (mA)	Max. (mA)
X2	3.7	4.4
X3	54.4	45.3



## LED MOUNTING METHOD

1. The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement. Lead-forming may be required to insure the lead pitch matches the hole pitch. Refer to the figure below for proper lead forming procedures (Fig.1).

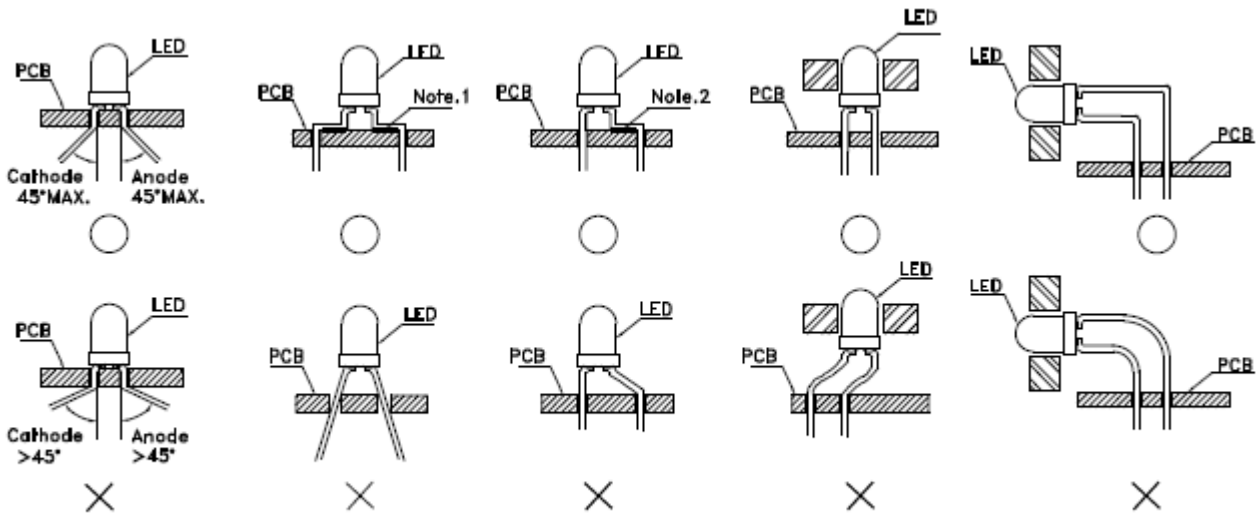


Fig. 1

“ ” Correct mounting method “X” Incorrect mounting method

Note 1-2: Do not route PCB trace in the contact area between the lead frame and the PCB to prevent short-circuits.

2. When soldering wire to the LED, use individual heat-shrink tubing to insulate the exposed leads to prevent accidental contact short-circuit (Fig.2).

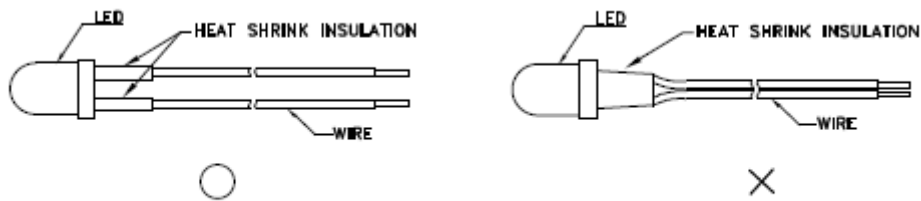


Fig. 2

3. Use stand-offs (Fig.3) or spacers (Fig.4) to securely position the LED above the PCB.

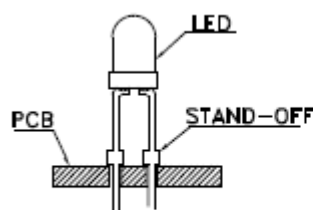


Fig. 3

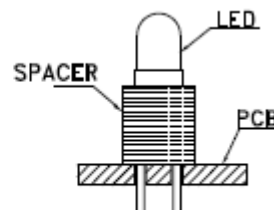
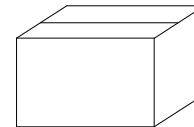
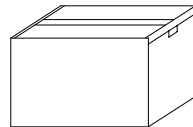
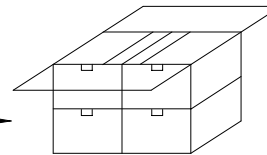
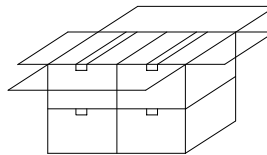
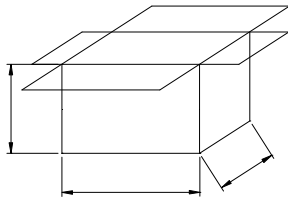
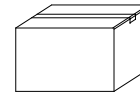
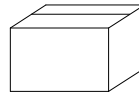
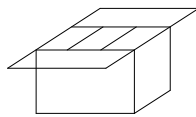
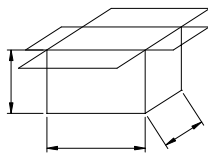
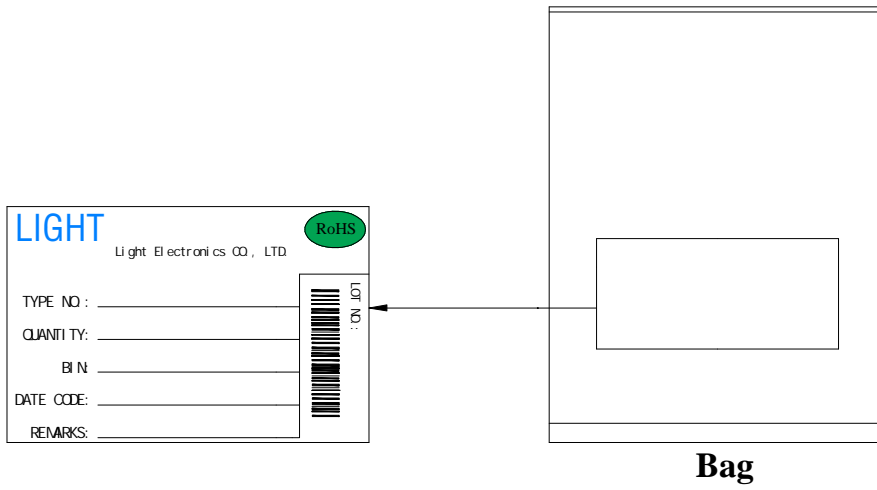


Fig. 4



## PACKAGE



Bag minimum volume (pcs / Bag)	Bag volume (pcs / Bag)	Inner box volume (Bag / box)	Outer carton volume (Box / Carton)
500	1000	10	4