General Information

Requirements to user

The LED products are designed, manufactured, and sold aiming at high standard quality and reliability, however, we requests users for the following

a. Right product should be used properly matched to application.
b. Application circuit should be designed with enough tolerance statistically.
c. Careful attention should be paid for thermal radiation design.
d. Use in absolute maximum rating.
e. Careful consideration should be given to the fluctuation of power supply voltage not to cause faults.
f. Careful attention should be paid to factors causing external stress (surge, vibration shock, temperature and ambience).

Storage:

To prevent humid absorption while transporting or storing the products, our products are provided by humidity proof package.
Because of the humidity proof packing, it is recommended the product to be mounted immediately after unpacking. To store after unpacking, seal the packing again using a tape (with silica-gel).
Store LED in the following environment is recommended : Temp=5~30°C. Humidity=60%RH max.

Lead forming

Make lead pin forming before soldering. During soldering, or after soldering, do not give any force to the lead. Upon forming the lead pin, do not bend the same position repeatedly, it may cause a break of lead pin.
Any unsuitable stress applied to the epoxy body may break bonding wire in LED.
The minimum distance for the place to bend the lead is 2mm from base of resin.

Soldering

LED of resin mold has been treated with molding with highly pure resin by suppressing the addition of filler in order to increase the efficiency of light emitting and light receiving functions. Accordingly, unlike the resin such as IC, the reliability of element will be greatly influenced by the handling of chemicals, thermal, or mechanical stress. Then, make soldering for the lead pin at the position of lead wire away from base of resin more than 2mm.
Immediately after soldering, if adjustment is made for the mounting of warp of board, stress will be given to the LED, which would be broken, then, pay attention to the treatment.
If soldered by using a soldering iron, do not solder both the lead of the LED at the same time.

	Iron Soldering	Dip Soldering	Reflow Soldering
General package	temperature maximum:300°C soldering iron:30W tip4.5φX32mm time maximum: 3 seconds small type 2 seconds	preheat:100°C 60seconds solder temp:260°C small type: 240°C time: 5seconds	no
Mini Lamp	temperature maximum:240°C soldering iron:30W tip4.5φX32mm time maximum: 2seconds	preheat:100°C 60 seconds solder temp:240°C time: 3seconds	no
Surface Mount Type	temperature maximum:260°C soldering iron:25W tip4.5φX32mm time maximum: 5seconds	preheat:100°C 60seconds solder temp:260°C time: 5seconds	preheat:120~150°C 60~120seconds solder temp:240°C time: 5seconds
Numeric display Light bar dot matrix display	temperature maximum:300°C soldering iron:30W tip4.5φX32mm time maximum: 3seconds	preheat:80°C 60seconds solder temp:260°C time: 5seconds	no