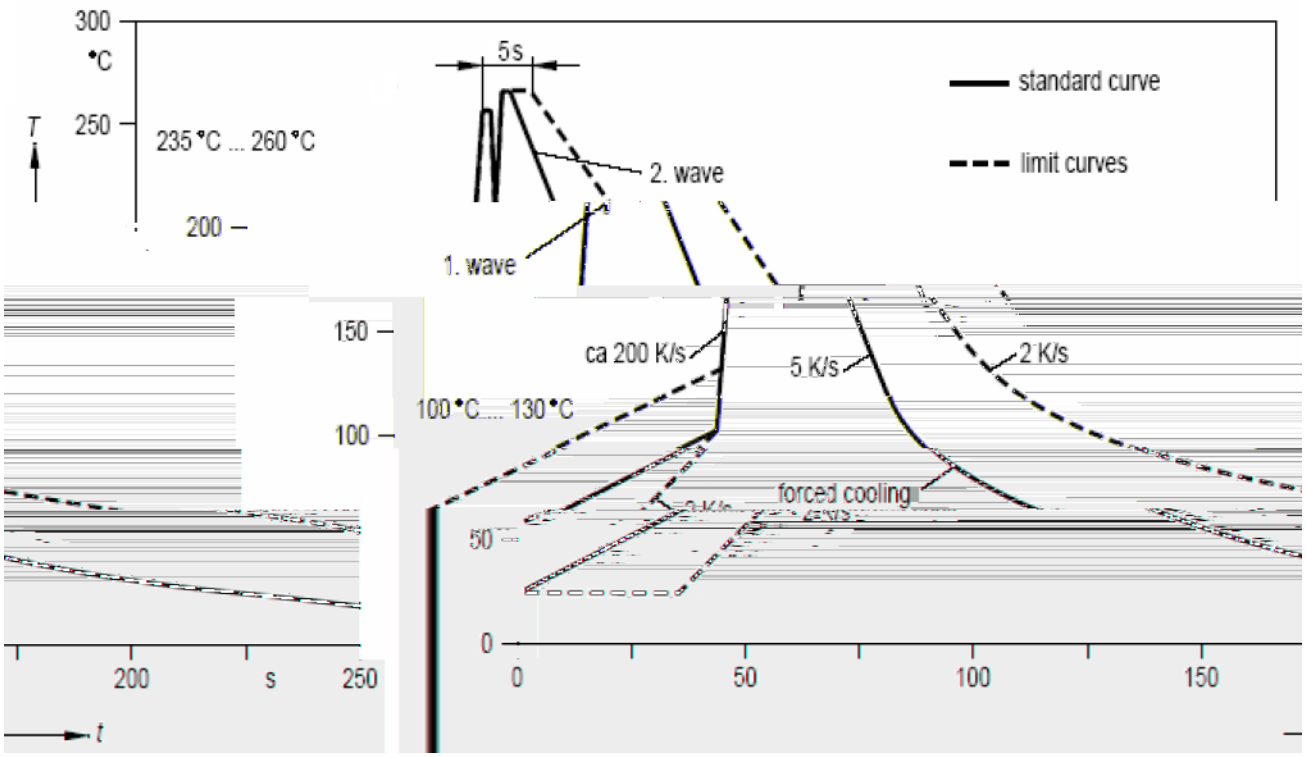
Electrical Optical Characteristics at Ta=25℃

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Range of Spectral Bandwidth	$\lambda_{0.5}$	840	---	1100	nm	---
Wavelength of Peak Sensitivity	λ_P	---	940	---		---
Collector- Emitter Breakdown Voltage	$V_{(BR)CEO}$	30	-	-	V	I_C=0.1mA Ee=0mW/cm^2
Emitter-Collector Breakdown Voltage	$V_{(BR)ECO}$	5	-	-	V	I_R=0.1mA Ee=0 mW/cm^2
Collector- Emitter Saturation Voltage	$V_{CE(SAT)}$	-	-	0.5	V	I_C=0.1 mA Ee=1.0mW/cm^2
Rise Time	T_r	-	15	-	μS	Vcc=5V R_L=1KΩ I_C=1mA
Fall Time	T_f	-	15	-	μS	Vcc=5V R_L=1KΩ I_C=1mA
Viewing Angle	$2\theta_{1/2}$	---	80	---	Deg.	
Collector Dark Current	I_{CEO}	-	-	100	nA	V_{CE}=10V E_e=0 mW/cm^2
On State Collector Current	$I_{C(ON)}$	---	6.5	---	mA	V_{CE}=5V E_e=1.0mW/cm^2 λ_P=940nm

Note:

1. 2 $_{1/2}$ 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 ±15% tolerance.

Recommended Wave Soldering Profile



LEAD FORMING PROCEDURES

1. Maintain a minimum of 2mm clearance between the base of the LED lens and the first lead bend (Fig.5 and Fig.6).

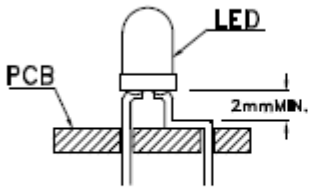


Fig. 5

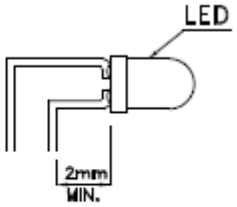


Fig. 6

2. Lead forming or bending must be performed before soldering, never during or after soldering.
3. Do not stress the LED lens during lead-forming in order to fractures in the lens epoxy and damage the internal structures.
4. During lead forming, use tools or jigs to hold the leads securely so that the bending force will not be transmitted to the LED lens and its internal structures. Do not perform lead forming once the component has been mounted onto the PCB (Fig.7).
5. Do not bend the leads more than twice (Fig.8).

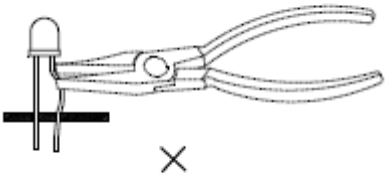


Fig. 7

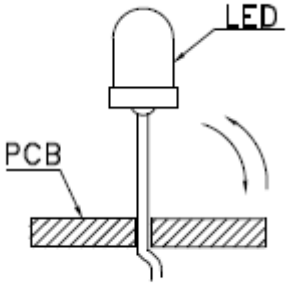


Fig. 8

6. After soldering or other high-temperature assembly, allow the LED to cool down to 50 ℃ before applying outside force (Fig.9). In general, avoid placing excess force on the LED to avoid damage. For any questions please consult with LIGHT representative for proper handling procedures.

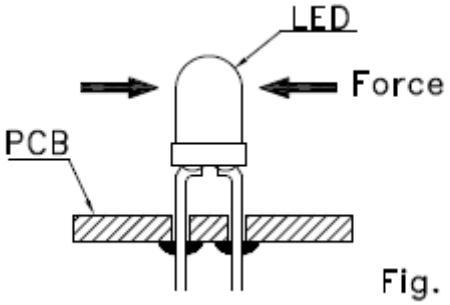


Fig. 9