

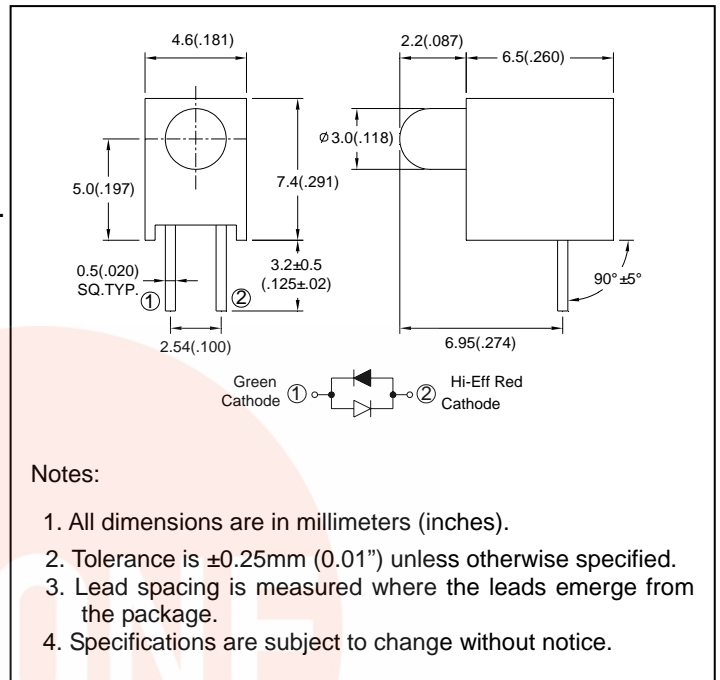
● **Features:**

1. Chip material: GaAsP/GaP(Hi-Eff Red)
and GaP/GaP (Green)
2. Emitted color :Hi-Eff Red and Green
3. Lens Appearance : White Diffused
4. Designed for ease in circuit board assembly.
5. Black case enhance contrast ratio.
6. Solid state light source.
7. Reliable and rugged.
8. This product don't contained restriction
substance, compliance RoHS standard.

● **Applications:**

1. TV set
2. Monitor
3. Telephone
4. Computer
5. Circuit board

● **Package Dimensions:**



● **Absolute Maximum Ratings(Ta=25°C)**

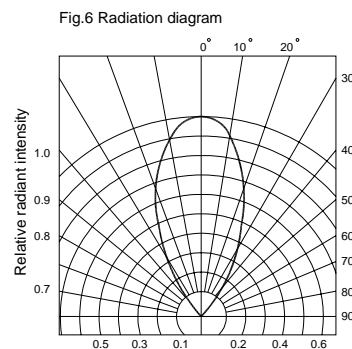
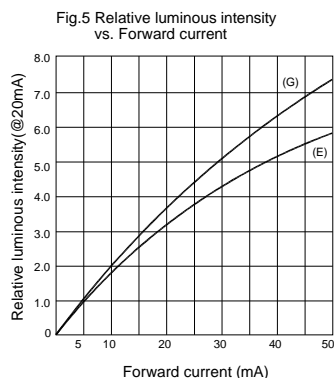
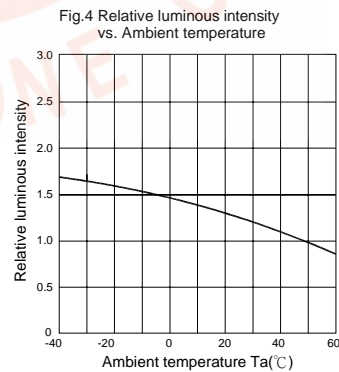
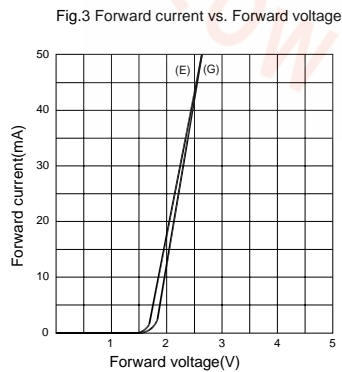
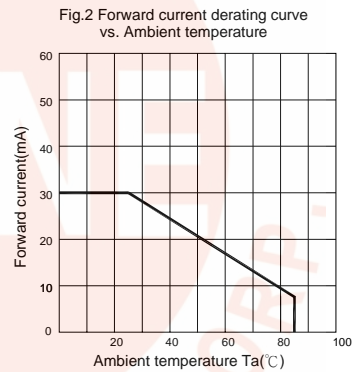
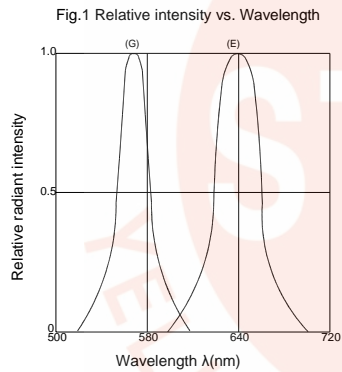
Parameter	Symbol	Hi-Eff Red	Green	Unit
Power Dissipation	Pd	80	80	mW
Forward Current	I _F	30	30	mA
Peak Forward Current	I _{FP}	150	150	mA
Operating Temperature	Topr	-40°C ~85°C		
Storage Temperature	Tstg	-40°C ~100°C		
Soldering Temperature	Tsol	260°C max (for 5 seconds)		
Hand Soldering Temperature	Tsol	350°C max(for 3 seconds)		

*1 Condition for I_{FP} is pulse of 1/10 duty and 0.1msec width.

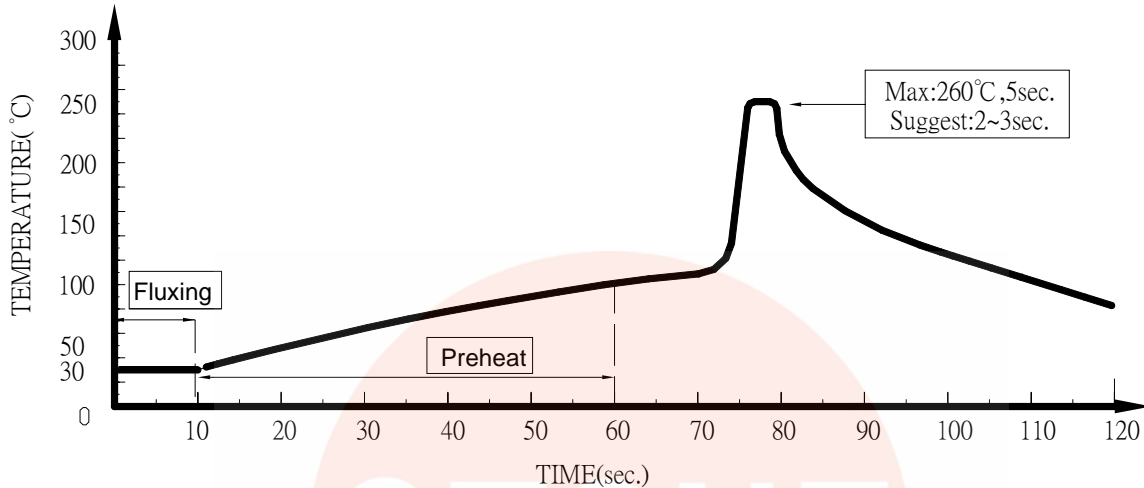
● **Electrical and optical characteristics(Ta=25°C)**

Parameter	Symbol	Condition	Color	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F=20mA$	Hi-Eff Red Green	-	2.1 2.2	2.6 2.6	V
Luminous Intensity	I_v	$I_F=20mA$	Hi-Eff Red Green	-	9 10	-	mcd
Peak Wave Length	λ_p	$I_F=20mA$	Hi-Eff Red Green	-	640 568	-	nm
Dominant Wave Length	λ_d	$I_F=20mA$	Hi-Eff Red Green	617 560	- -	638 574	nm
Spectral Line Half-width	$\Delta \lambda$	$I_F=20mA$	Hi-Eff Red Green	-	35 30	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20mA$	Hi-Eff Red Green	-	50	-	deg

● **Typical Electro-Optical Characteristics Curves**



● **Dip Soldering**



1. Please avoid any external stress applied to the lead-frames and epoxy while the LEDs are at high temperature, especially during soldering
2. DIP soldering and hand soldering should not be done more than one time.
3. After soldering, avoid the epoxy lens from mechanical shock or vibration until the LEDs are back to room temperature.
4. Avoid rapid cooling during temperature ramp-down process
5. Although the soldering condition is recommended above, soldering at the lowest possible temperature is feasible for the LEDs

● **IRON Soldering**

A : Max : 350°C Within 3 sec. One time only.

B : For 3mm LED without flange, if the LED epoxy lays flat on the PCB, the welding condition is 350°C within 2 seconds, one time only.

