

1. All dimensions are in millimeters.
2. Tolerance is ± 0.25 unless otherwise noted.
3. In the installation process must be good anti-static measures.
4. In the process of using effective suggestions finradiating surface area of over 50 square centimeter

■ Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	IF	150	mA
Peak Forward Current	IFP	500	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	1000	mw
Electrostatic discharge	ESD	2000	V
Operation Temperature	TOPR	-25~+80	°C
Storage Temperature	TSTG	-40~+85	°C
Lead Soldering Temperature	TSOL	Reflow Soldering: 220°C for 5 sec Hand Soldering: 260°C for 3 sec	

*Ifp Conditions: Pulse Wide \leq 10msec \leq 1/10

*Tsol Conditions:3mm from the base of epoxy bulb

■ Typical Optical/Electrical Characteristics

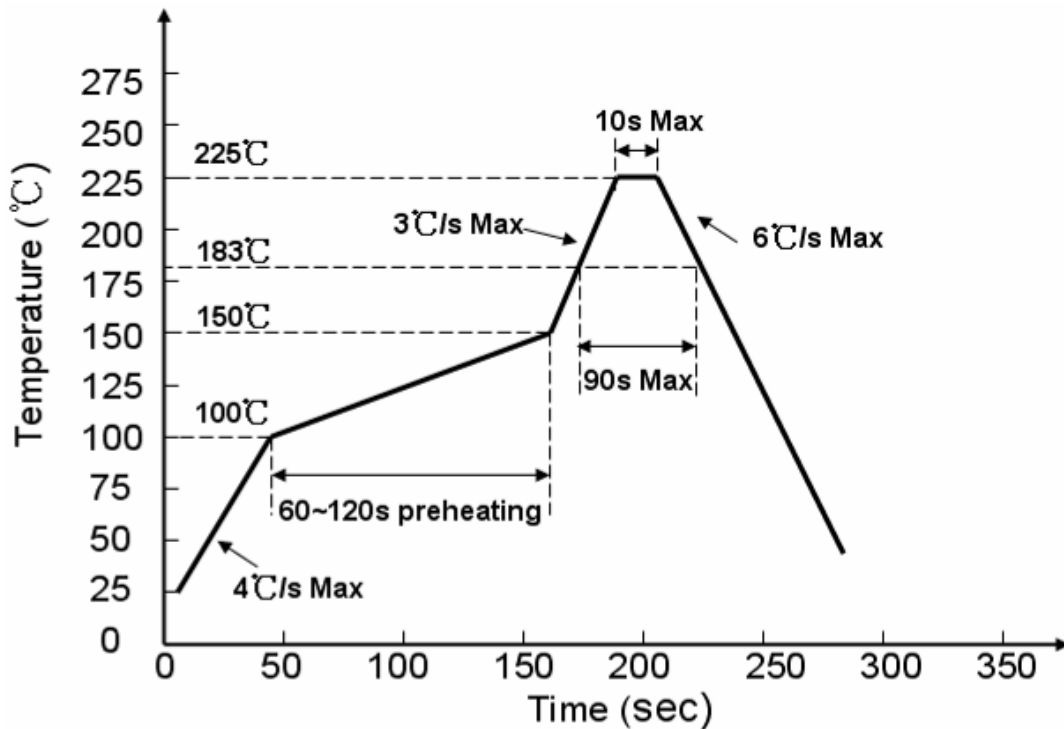
Item	Symbol	Condition	Min	Typ	Max	Unit	
Forward Voltage	VF	IF=150mA	R	2.0	2.2	2.4	V
			G	3.0	3.2	3.4	
			B	3.0	3.2	3.4	
Luminous Flux	Φ	IF=150mA	R	15	18	20	lm
			G	25	30	35	
			B	5	8	10	
Wavelength	WD	IF=150mA	R	620	623	625	nm
			G	520	523	525	
			B	460	463	465	
Reverse current	IR	IF=150mA	0		5	μ A	
Viewing Angle	2θ 1/2	IF=150mA			120	deg	
Recommend Forward Current	IF(rec)	IF=150mA			150	mA	

Notes:

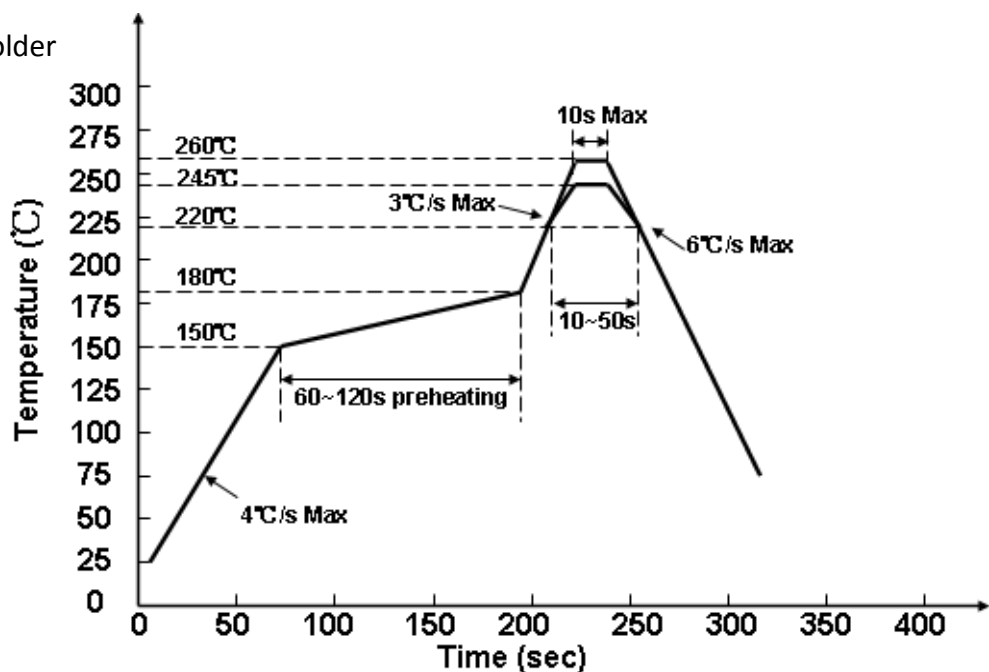
1. Work absolute ratings Ta=25°C
2. Tolerance of measurement of forward voltage \pm 0.1V

Soldering Profile Suggested

1. For Lead Solder



2. For Lead Free Solder



Notes:

We recommend the soldering temperature $245 \pm 5^\circ\text{C}$;

The maximum temperature should be limited to 260°C .

Sort	Test Item	reference standard	Test condition	Lasting time	Sample number	Accept level
environmental testing	T/C Temperature Cycle	JHIAED-47 01 100 105	- 40°C~25°C~100 °C~25°C 60min-30min- 60min- 30min	Circular 100 rounds	20	0/20
	Hot and cold impact	MIL-STD-20 2G	-40°C~150°C 60min-60min	Circular 300 rounds	20	0/20
	High wet and heat cycle	JEITAED-47 01 200 203	30°C~85°C RH=90% 24h/round 24hours/round	Circular 50 rounds	20	0/20
	high-temperature storage	JEITAED-47 01 200 201	Ta=60°C	1000hours	20	0/20
	low-temperature storage	JEITAED-47 01 200 202	Ta=-10°C	1000hours	20	0/20
	High temperature and high humidity storage	JEITAED-47 01 100 103	Ta=60°C RH=90%	1000hours	20	0/20
Life test	Normal life test		Ta=25°C TF=150mA	1000hours	20	0/20
	Life of high temperature and high humidity test		Ta=60°C RH=90% TF=150mA	500 hours	20	0/20
	Low-temperature life test		Ta=-20°C TF=150mA	500 hours	20	0/20
	High-temperature life test		Ta=85°C TF=150mA	500 hours	20	0/20
destructive test	soldering resistance(re-flow soldering)	JEITAED-47 01 300 301	Tsol=260°C, 10s pre-processing : 30°C70%RH168 hours	Weld for the second time	10	0/10
	Weld-ability		Tsol=280°C±5°C, 5s With scaling powder	Weld for the first time	10	0/10
static	Electrostatic discharge test	JEITAED-47 01 300 304	Human Body Model 3000V	forward direction 3times	10	0/10
mechanical testing	vibration test	JEITAED-47 01 400 403	20G20-2000HZ4 minutes X, Y, Z/ 3 directions	4times each direction	10	0/10
aging	Light failure test		TF=150mA	1000 hours	10	0.5%



Product Notes:

Product transportation

Scope of application: for all products

In the course of transportation, led products need to keep face-up, moisture-proof and waterproof, need to avoid extrusion, collision and violent vibration.

Product storage and time limit

Scope of application: for all products

Sealed storage at room temperature: 20°C~30°C, 40%~60%RH and product valid for six months;

Moisture-proof sealing storage: 20°C~30°C, 25%~60%RH and product valid for one year;

After unpacking, led product is recommended to complete within 24 hours (Environmental conditions temperature <30 °C, humidity <60%).

Junction temperature limit and thermal treatment

Scope of application: for all products

When LED products are in use, please ensure that there are the necessary thermal design and if LEDs are inadequate cooling and LED internal junction temperature exceeds 125 °C, the LED luminous efficiency and service life will be reduced.

Electrostatic protection

Scope of application: for all products

LED is an electrostatic sensitive product, and although LED products with excellent anti-static ability, every shock generated by electrostatic discharge will have a certain degree of damage to the LED. Therefore, in the process of using LED products, we need to do electrostatic protective measures, Such as wear anti-static gloves and anti-static bracelets.

Manual welding operation guidelines

Scope of application: for all products

when welding, we advice the soldering iron on the bracket pin's residence time is not more than 3 seconds and if need to weld repeatedly, the interval time is not less than 2 seconds, in order to avoid long-time high temperature causing damage to the LED.

Others notes:

When Using LED matrix drive, to make sure the reverse voltage does not exceed the maximum rating, and the LED light output intensity can let a person discomfort, and we must take preventive measures, in order to ensure direct vision LED no more than a few seconds. After finding defective LEDs, users should inform us, and shouldn't make the reverse process of LEDs ,such as anatomy and analysis, etc.