



RODAN(TAIWAN)LTD.

INFRARED EMITTING DIODE

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1.ELEMENT APPEARANCE

DATE : MAY.31.2005.

Model No.	Material	Lighting Color	Resin Color
RT5-247ET	AlGaAs/ AlGaAs	Non-Visible	Water Clear

2.ABSOLUTE MAXIMUM RATINGS AT Ta=25

Characteristic	Symbol	Rating	Unit
Pulse forward current (t[10us)	IMP	1	A
Forward direct current	IFM	100	mA
Reverse voltage	VRM	5	V
Operating temperature	Topr	-25 to +75	
Storage temperature	Tstg	-25 to +100	
Power dissipation	Pd	200	mW
Lead soldering temperature (5mm from body) 260 for 5sec.			

3.ELECTRO-OPTICAL CHARACTERISTICS AT Ta=25

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Radiant intensity	Ie	IF=50mA	9	15		mW/sr
Forward voltage	VF	IF=100mA		1.6	2.0	V
Reverse current	IR	VR=4V			10	μ A
Peak emission wavelength	p	IF=50mA		850		nm
Spectral band width @ 50%	Δ	IF=50mA		42		nm
Rise time/Fall time	tr/tf	IF=50mA		25/15		ns
Viewing angle	2 1/2	IF=50mA		70		deg.

Radiant Intensity Measurement allowance is ±15 %

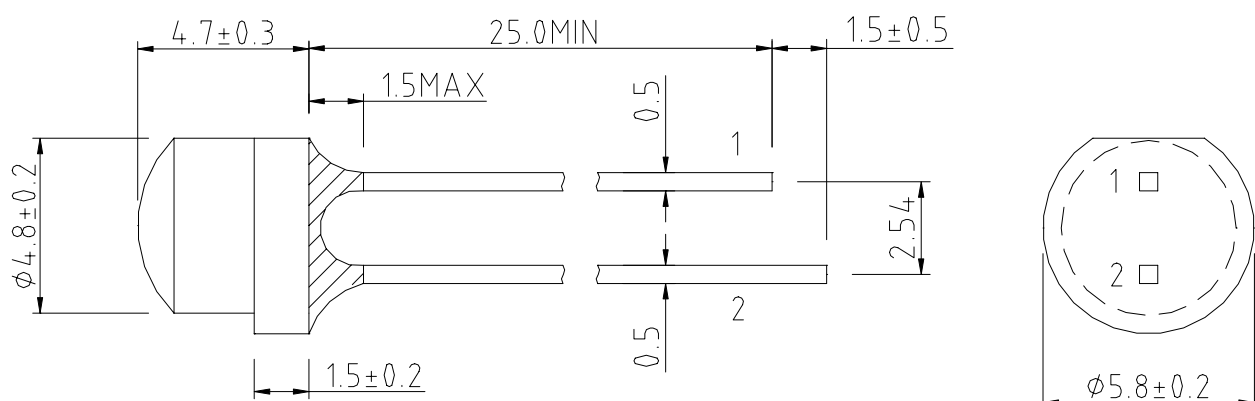
Forward voltage Measurement allowance is ±0.05V

Peak emission wavelength Measurement allowance is ±1nm

4.DIMENSIONS UNIT : m/m

SIGN : 1.CATHODE

2.ANODE

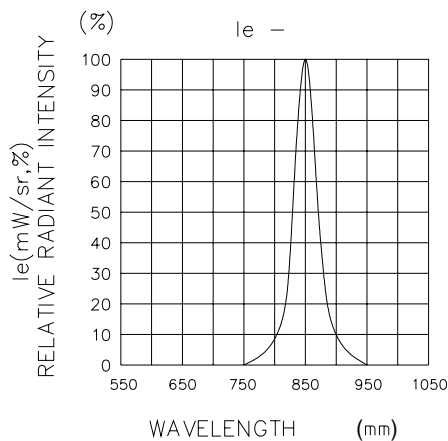
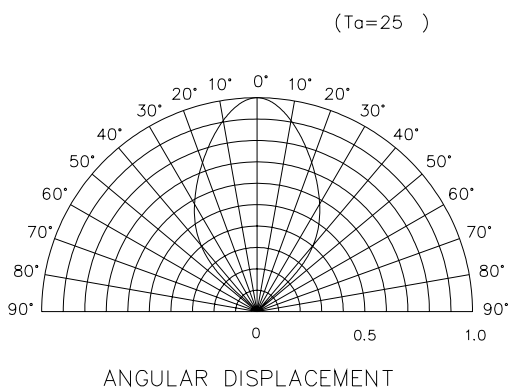
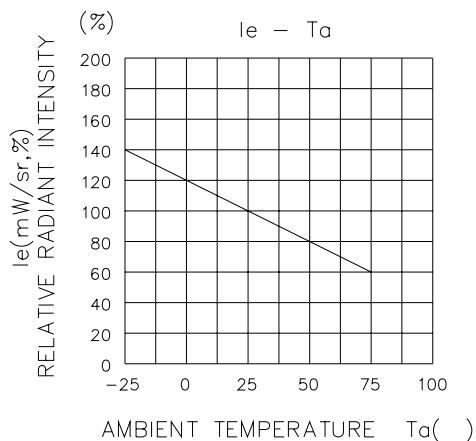
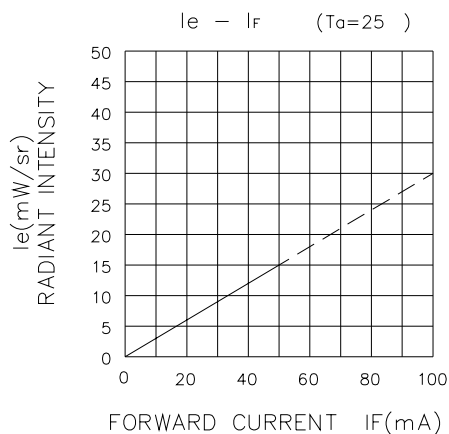
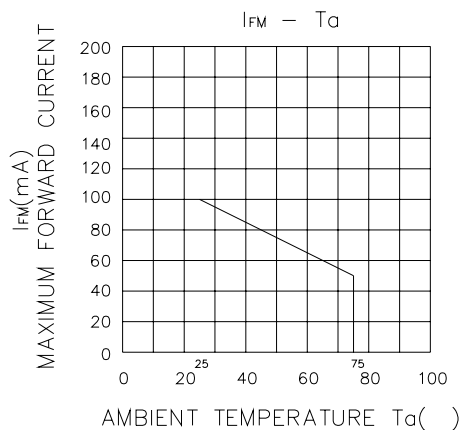
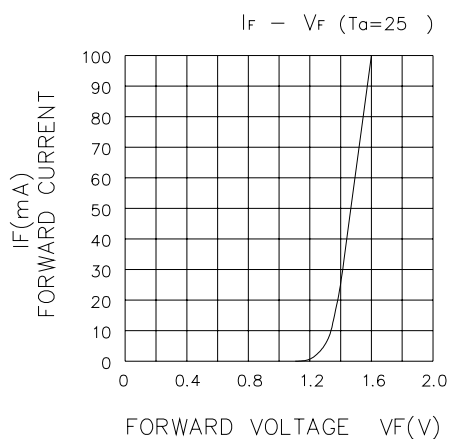




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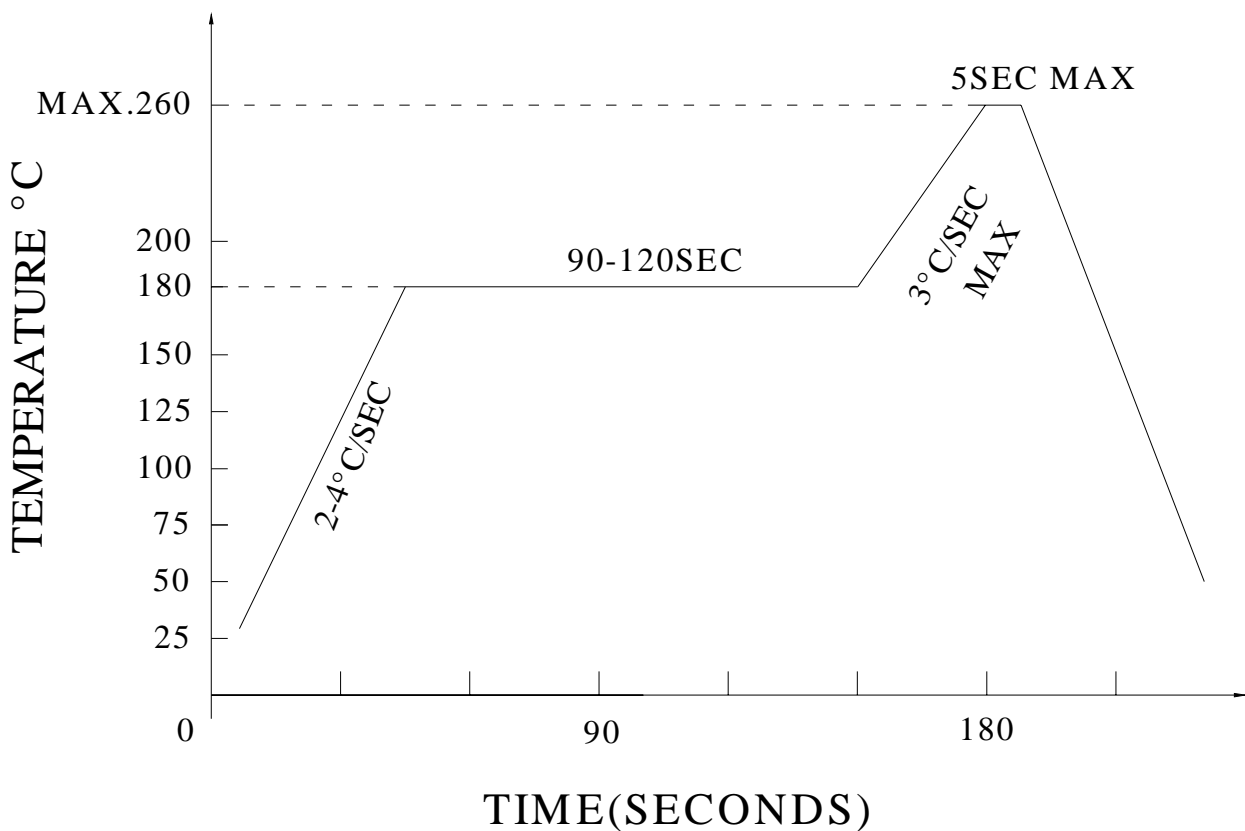


Lamp Condition

In the automatic mounting of LAMP LED to the L/F, any bending, expanding, and pulling forces against the LAMP LED should be minimized to prevent the electrical failures or mechanical damaged.

Reflow Soldering and Temperature Profile

The LAMP LED is designed for the reflow soldering process. Too high temperature or too large temperature gradient may cause the electrical and optical failures.





Reliability Test Items

CONDITIONS :

The reliability of products shall be satisfied with items listed below.

NO.	Item	Condition	Time/Cycle	Number of Damaged
1	Soldering Heat Test	260	5 sec	0/60
2	Thermal Shock	0 (15sec) ~100 (15sec)	20 cycle	0/60
3	High Temp. Storage	100	1000 Hrs	0/60
4	Low Temp. Storage	-25	1000 Hrs	0/60
5	Operation Temperature Cycle Test	-25 ~75	100 Cycles , 200Hrs	0/60
6	High Temp. High Humidity Test	60 , 90% RH	1000Hrs	0/60
7	Operation Life Test	Room Temp.50mA	1000Hrs	0/60