



RODAN(TAIWAN)LTD.

PHOTOTRANSISTOR

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1.ELEMENT APPEARANCE

DATE : MAY.30.2005.

Model No.	Material	Lighting Color	Resin Color
RT3-2524TBBSN-12	Silicon	-	Black Color

2.ABSOLUTE MAXIMUM RATINGS AT Ta=25

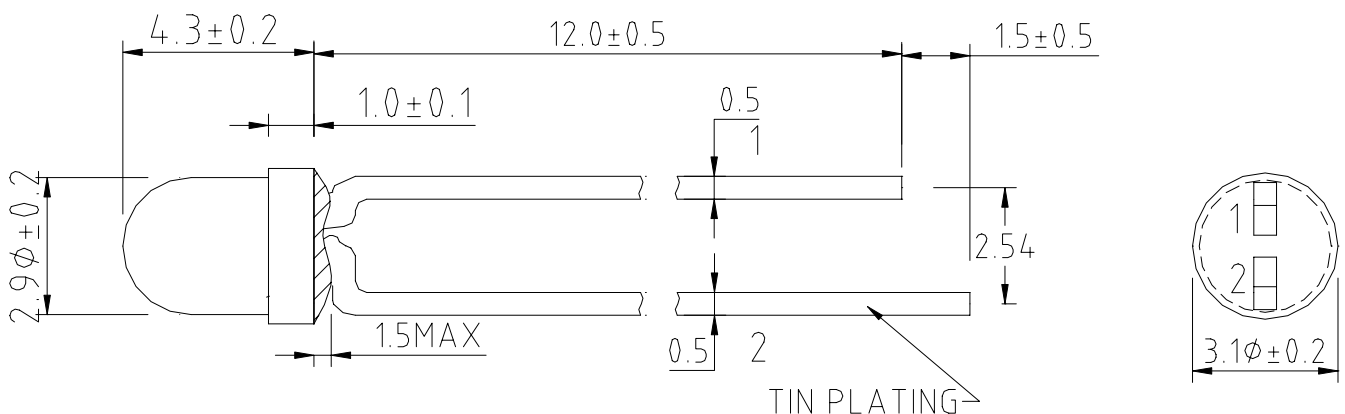
Characteristic	Symbol	Rating	Unit
Operating temperature	Topr	-25 to +75	
Storage temperature	Tstg	-25 to +100	
Power dissipation	Pd	100	mW
Lead soldering temperature (5mm from body) 260 for 5sec.			

3.ELECTRO-OPTICAL CHARACTERISTICS AT Ta=25

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Collector-Emitter breakdown voltage	BV _{CEO}	I _c = 100 μA	30		100	V
Emitter-collector breakdown voltage	BV _{ECO}	I _E = 100 μA	6.5			V
Collector dark current	I _{CEO}	V _{ce} = 20 V			100	nA
Light current	I _L	V _{ce} = 10 V E _e = 0.5 mW/cm ² p= 940 nm	1.8	3		mA
Collector-Emitter saturation voltage	V _{ce(sat)}	I _c = 2 mA I _B = 100 μA			0.2	V
Radiant sensitivity area	A			0.186		mm ²
Peak sensitive wavelength	p			850		nm
Rise/Fall time	tr/tf	V _{ce} =5V, I _c =1mA R _L = 1000		15/15		μs
Current gain	h _{FE}	V _{ce} =5V I _c = 2 mA	800	~	1400	
Viewing angle	2 1/2			45		deg.

4.DIMENSIONS UNIT : m/m

SIGN : 1. COLLECTOR
2. EMITTER

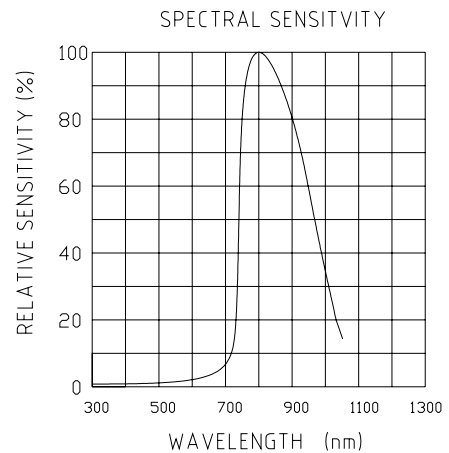
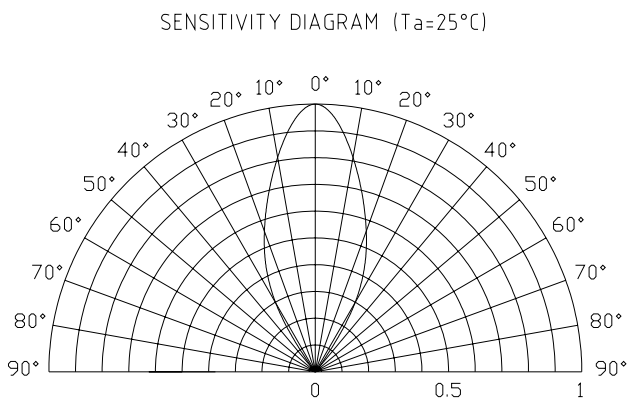
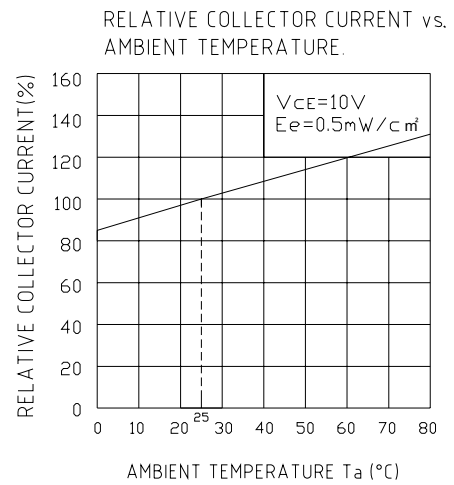
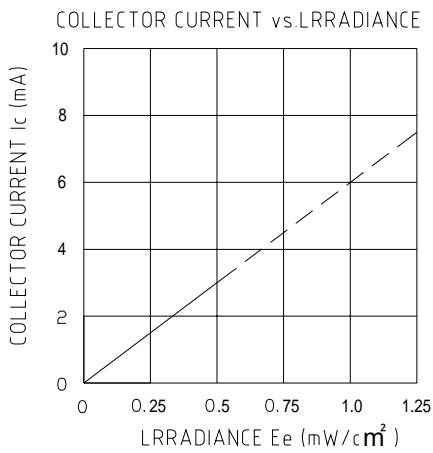
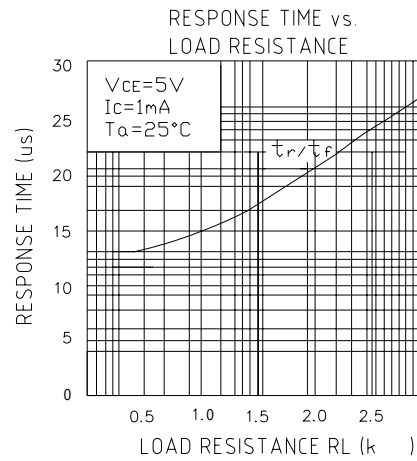
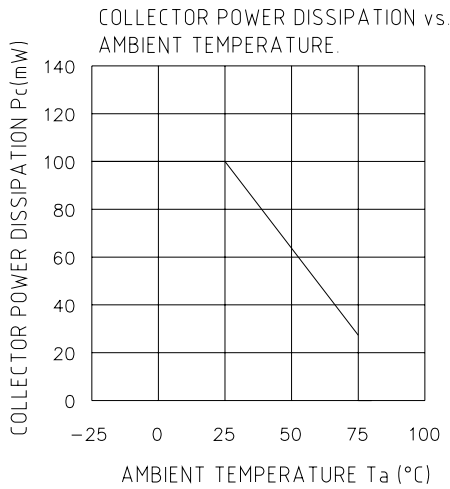




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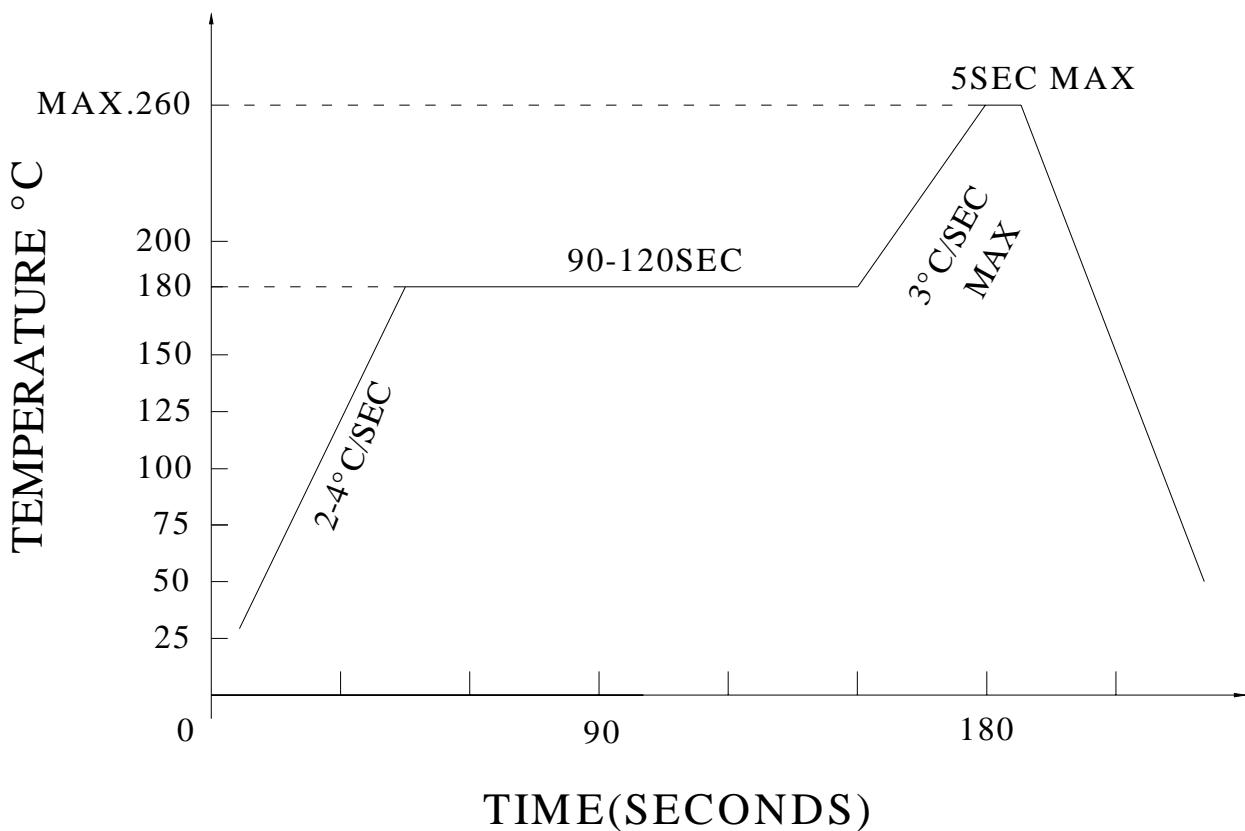


Lamp Condition

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. @IR940nm	1000Hrs	0/60