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Technical Data Sheet

MODEL NO：B172R4-INH **0805 Package Flashing (1.5HZz) 2.5*1.25mm Chip LEDs**

Features：

●Package in 8mm tape on 7” diameter reel

●Compatible with automatic placement equipment

●Compatible with reflow solder process

Applications：

●Indicators

●Automotive：backlighting in dashboard and switch

●Backlight for LCD

Dice material	Emitted color	Lens Color
AlGaInP	Red	Water Clear
Built In Blinking I.C (1.5Hz)		

Electrical/Optical Characteristics(Ta=25℃)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Wavelength at peak emission	If=20mA	λ peak		625		nm
Spectral half bandwidth	If=20mA	△λ		20		nm
Dominant wavelength	If=20mA	λ dom	617	625		nm
Operating voltage	If=20mA	VDD	2.2		5.0	V
Luminous intensity	If=20mA	Iv	70	100		mcd
Viewing angle at 50% Iv	If=20mA	2θ 1/2		120		Deg
Reverse current	Vr=5V	Ir			10	μA

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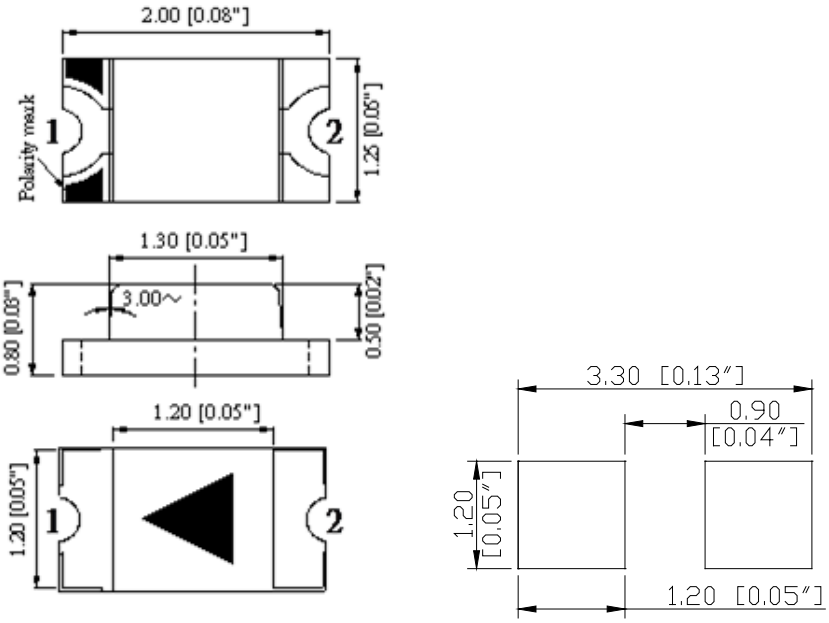
Absolute Maximum Ratings(Ta=25℃)

Parameter	Symbol	Value	Unit
Power dissipation	Pd	72	mW
Forward current	If	20	mA
Reverse voltage	Vr	5	V
Operating temperature range	Top	-40 ~+80	℃
Storage temperature range	Tstg	-40 ~+85	℃
Peak pulsing current (1/8 duty f=1kHz)	Ifp	125	mA

PACKAGING DIMENSIONS (mm):



Notes:

1. All dimensions are in millimeters (inches);
2. Tolerances are ±0.1mm (0.004inch) unless otherwise noted.

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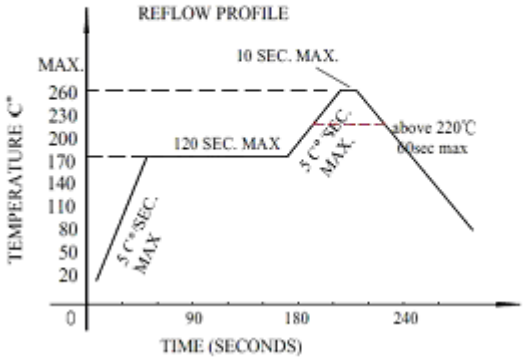
Precautions For Use：
Over－current－proof
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change （Burn out will happen）
Storage
1. The operation of temperature and R.H. are：5℃～30℃, 60％R.H. Max.
2. Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a dampproof box with desiccating regent. Considering the tape life, we suggest our customers to use our products within 1.5 year（from production date）.
3. It's recommended to bake before soldering when the package is unsealed after 72 hrs. The condition is：60℃±5℃ for 15hrs.

■ Reflow Temp/Time

■ Temperature-profile (Surface of circuit board)

Use the following conditions shown in the figure.



NOTES:

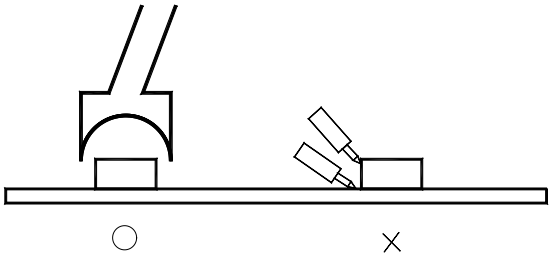
1. We recommend the reflow temperature 245℃(±5℃).the maximum soldering temperature should be limited to 260℃.
2. dont cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

■Soldering iron

Basic spec is ≤ 5sec when 260℃. If temperature is higher, time should be shorter (+10℃→ -1sec).Power dissipation of iron should be smaller than 20W, and temperatures should be controllable .Surface temperature of the device should be under 230℃ .

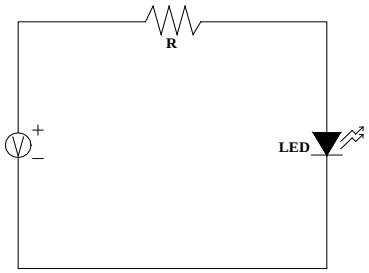
■Rework

1. Customer must finish rework within 5 sec under 260℃.
2. The head of iron can not touch copper foil
3. Twin-head type is preferred.

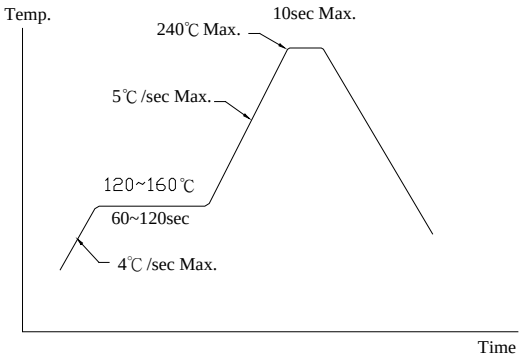


■ **Avoid rubbing or scraping the resin by any object, during high temperature, for example reflow 、solder etc.**

Test Circuit



Reflow Temp. / Time：



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Reliability Test Items And Conditions				
The reliability of products shal be satisfied with items listed below.				
No.	Items	Test Condition	Test Hours/Cycles	Sample Size
1	Solder Heat	TEMP：260℃±5℃	5 sec	48 pcs
2	Temperature Cycle	90℃~ 25℃~ -30℃ ~ 25℃ 30m 5m 30m 5m	300Cycles	48 Pcs
3	Thermal Shick	100℃~ -55℃ 10m 10m	100Cycles	48 Pcs
4	Operation Life	If=20mA	1000 Hrs	48 Pcs
5	High Temperature Storage	Temp:90℃	1000Hrs	48 Pcs
6	Low Temperature Storage	Temp:-30℃	1000Hrs	48 Pcs
7	High Temperature/High Humidity	80℃ / R.H80%	1000Hrs	48 Pcs