

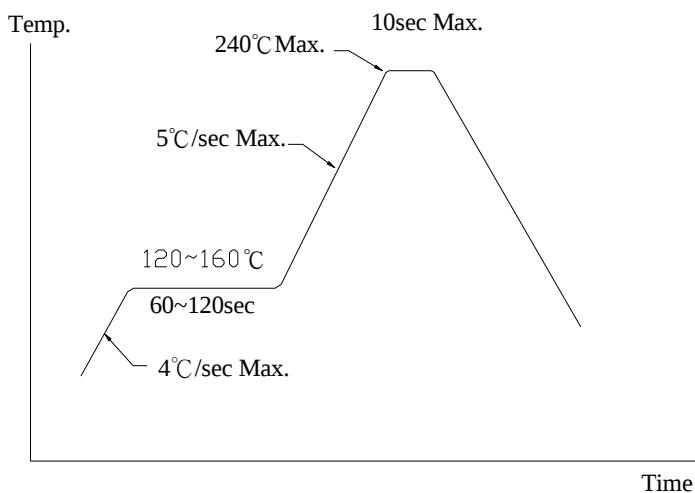
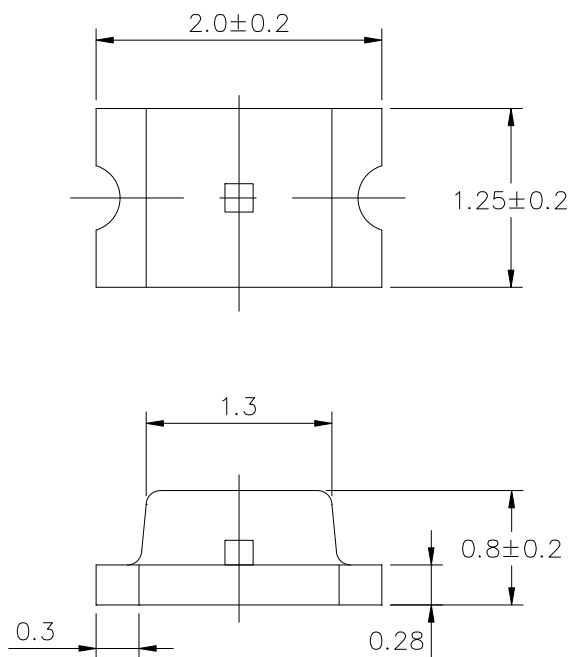
SURFACE MOUNT LED LAMPS

0805 Package Yellow Green SMD Chip LED Lamps

Part Number: AL-HGD35A

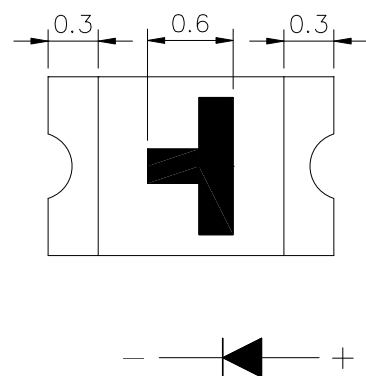
Package outlines & Re-flow Profile

■ Reflow Temp./Time

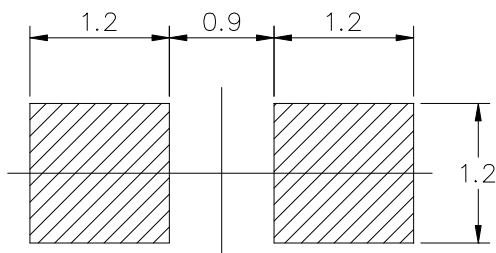


■ Soldering iron

Basic spec is $\leq 5\text{sec}$ when 260°C . If temperature is higher, time should be shorter ($+10^{\circ}\text{C} \rightarrow -1\text{sec}$). Power dissipation of iron should be smaller than 15W , and temperatures should be controllable. Surface temperature of the device should be under 230°C .



Recommend Pad Layout



ITEM	MATERIALS
Resin (mold)	Epoxy
Lens color	Water Clear
Printed circuit board	BT
Dice	AlGaInP
Emitted color	Yellow Green

NOTES:

1. All dimensions are in millimeters (inches);
2. Tolerances are $\pm 0.1\text{mm}$ (0.004inch) unless otherwise noted.
3. Soldering terminal may shift in x, y direction.
4. Polarity referring on to the Cathode mark is reversed on the red.

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SURFACE MOUNT LED LAMPS

Part Number: AL-HGD35A

ELECTRO-OPTICAL CHARACTERISTICS **(T_A=25°C)**

Parameter	Test Condition	Symbol	Value			Unit
			MIN.	TYP.	MAX.	
Viewing angle at 50% I _V	I _F =20mA	2 θ 1/2	130			Deg
Forward voltage	I _F =20mA	V _F	—	2.0	2.6	V
Luminous intensity	I _F =20mA	I _V	—	50	—	mcd
Wavelength	I _F =20mA	λ d	—	570	—	nm
	I _F =20mA	λ p	—	575	—	nm
Peak pulsing current (1/10 duty f=1kHz)		I _{FP}	100			mA

Absolute maximum ratings **(T_A=25°C)**

Parameter	Symbol	Value	Unit
Forward current	I _F	30	mA
Reverse voltage	V _R	5	V
Reverse current	I _R	10	μA
Power Dissipation	P _D	50	mW
Operating temperature range	Top	-30 ~+80	°C
Storage temperature range	Tstg	-40 ~+90	°C

SURFACE MOUNT LED LAMPS**Part Number: AL-HGD35A****Test items and results of reliability**

No.	Items	Test Condition	Test Hours/Cycles	Sample Size
1	Solder Heat	TEMP : 260°C±5°C	5 sec	48 pcs
2	Temperature Cycle	90°C ~ 25°C ~ -30°C ~ 25°C 30m 5m 30m 5m	300Cycles	48 pcs
3	Thermal Shick	100°C ~ -55°C 10m 10m	100Cycles	48 pcs
4	Operation Life	I _F =20mA	1000 Hrs	48 pcs
5	High Temperature Storage	Temp : 90°C	1000Hrs	48 pcs
6	Low Temperature Storage	Temp : -30°C	1000Hrs	48 pcs
7	High Temperature / High Humidity	80°C / R.H80%	1000Hrs	48 pcs

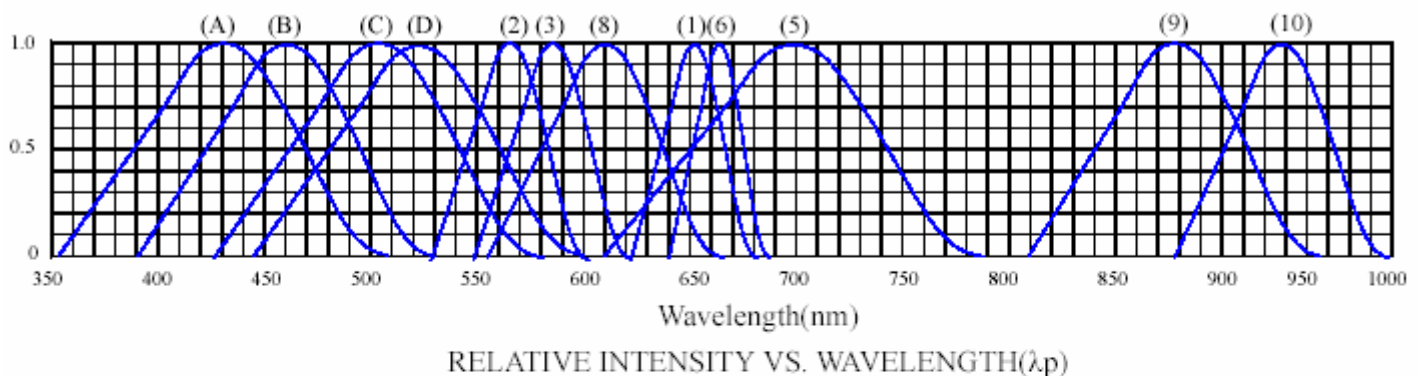
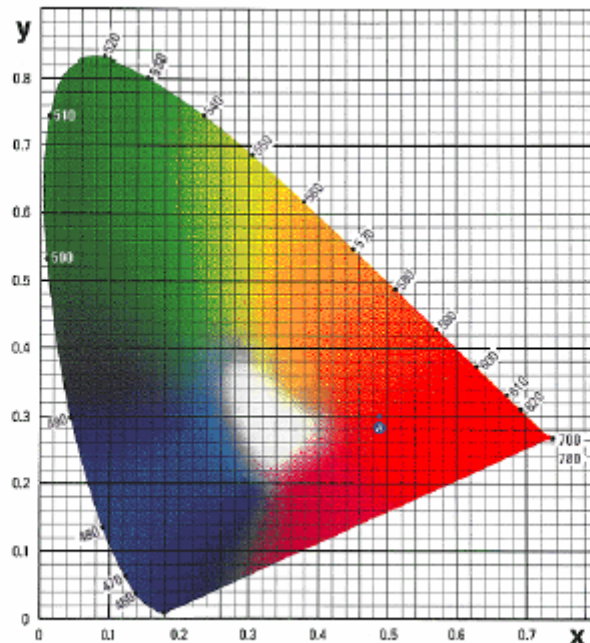
* Refer to reliability test standard specification for in this line.

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SURFACE MOUNT LED LAMPS

Part Number: AL-HGD35A

◆ TYPICAL ELECTRICAL-OPTICAL CHARACTERISTICS CURVES



- (1) GaAsP/GaAs 655nm/Red
- (2) GaP 568nm/ Yellow Green
- (3) GaAsP/GaP 585nm/Yellow
- (4) GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) GaP 700nm/Bright Red
- (6) GaAlAs/GaAs 660nm/Super Red
- (8) GaAsP/GaP 610nm/Super Red

- (9)- GaAlAs 880nm
- (10)-GaAs/GaAs&GaAlAs/GaAs 940nm
- (A)- GaN 430nm/Blue
- (B)- InGaN 470nm/Blue
- (C)- InGaN 502nm/Ultra Green
- (D)- InGaN 523nm/Ultra Green

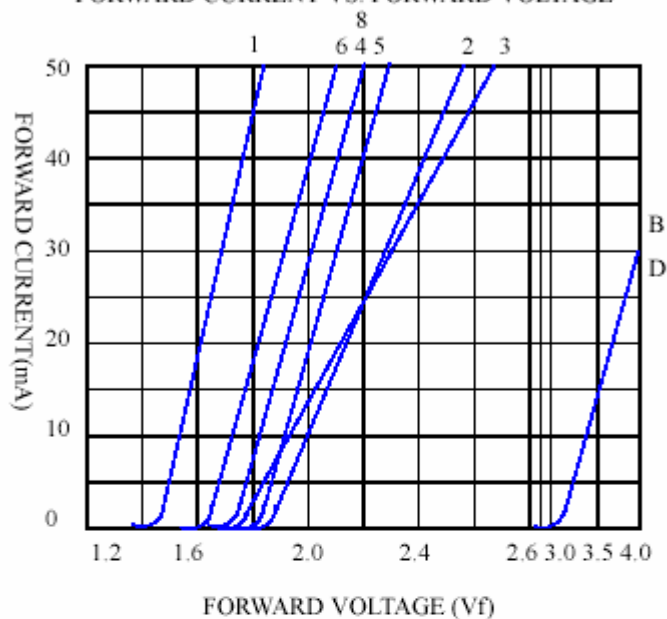
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SURFACE MOUNT LED LAMPS

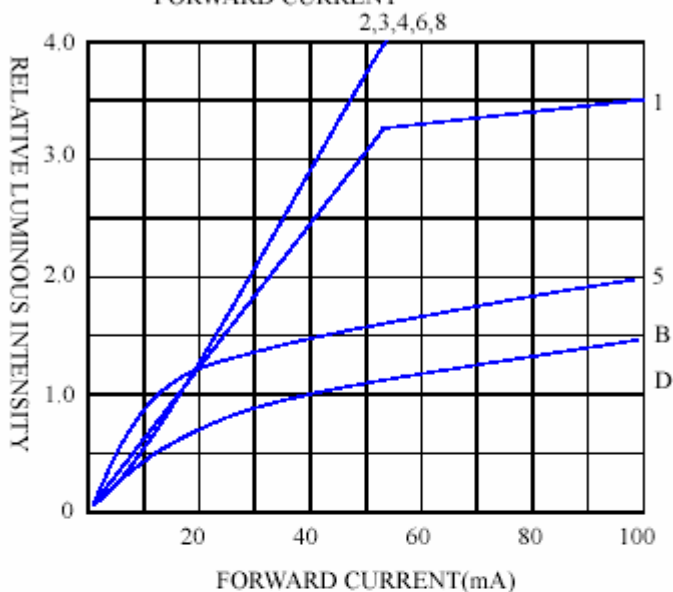
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◆ CHARACTERISTICS DIAGRAMS

FORWARD CURRENT VS. FORWARD VOLTAGE



RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



FORWARD CURRENT VS. AMBIENT TEMPERATURE

