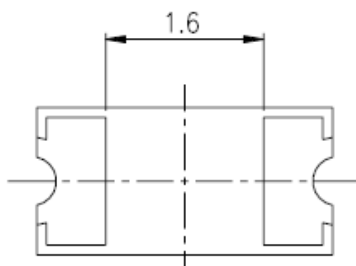
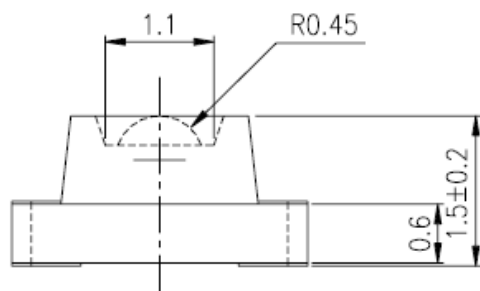
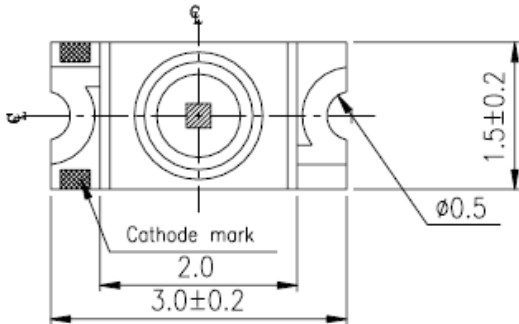


SURFACE MOUNT CHIP LED LAMPS

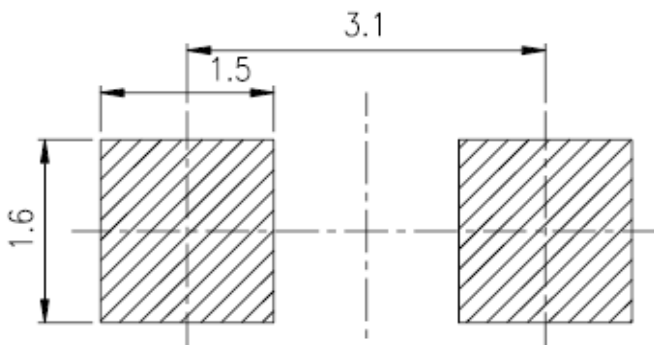
1206 Inner Lens Green SMD Chip LED Lamps

Part Number: AL-HG633A

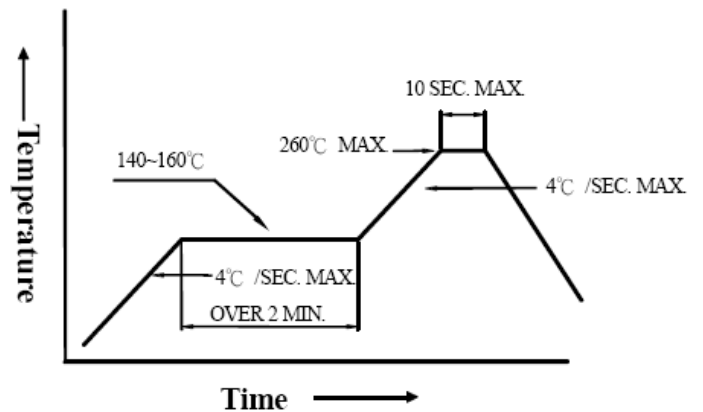
Package outlines & Re-flow Profile



For Reflow Soldering

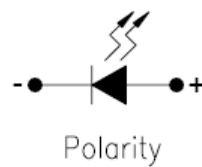


■ Reflow Temp/Time



■ Soldering iron

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



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

NOTES:

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

SURFACE MOUNT CHIP LED LAMPS

Part Number: AL-HG633A

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

Parameter	Test Condition	Symbol	Value	Unit
Viewing angle at 50% I _v	I _F =10mA	2 θ 1/2	60	Deg
Forward voltage	(Typ.)	V _F	3.2	V
	(Max.)		3.6	
Luminous intensity	I _F =20mA	I _v	500.0	mcd
Wavelength	I _F =20mA	λ _p	525	nm
		λ _d	525±5	
Spectral Line Half-Width	I _F =20mA	△λ	30	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	100	μA
Power Dissipation	P _D	100	mW
Operating temperature range	Top	-25 ~+80	°C
Storage temperature range	Tstg	-30 ~+85	°C
Lead soldering temperature	260°C For 5 Seconds		

SURFACE MOUNT CHIP LED LAMPS

Part Number: AL-HG633A

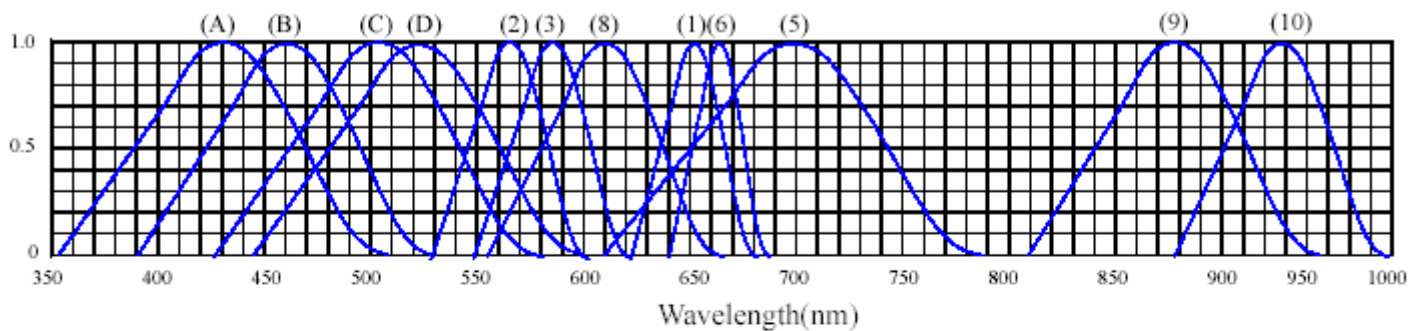
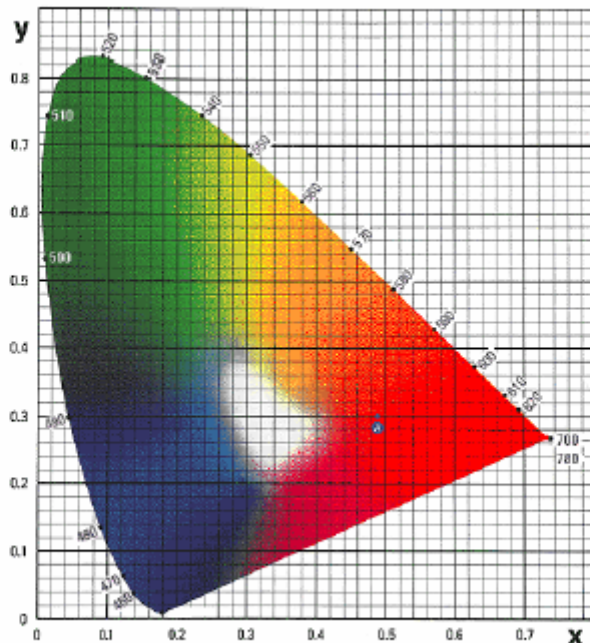
Test items and results of reliability

No.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Re
1	Reflow Soldering	Temp. : 260°C±5°C Min. 5sec.	6 Min.	22 PCS.	0/1
2	Temperature Cycle	H : +100°C 15min ∫ 5 min L : -40°C 15min	300 Cycles	22 PCS.	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	300 Cycles	22 PCS.	0/1
4	High Temperature Storage	Temp. : 100°C	1000 Hrs.	22 PCS.	0/1
5	Low Temperature Storage	Temp. : -40°C	1000 Hrs.	22 PCS.	0/1
6	DC Operating Life	IF = 20 mA	1000 Hrs.	22 PCS.	0/1
7	High Temperature / High Humidity	85°C/ 85%RH	1000 Hrs.	22 PCS.	0/1

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

SURFACE MOUNT CHIP LED LAMPS

Part Number: AL-HG633A

Typical Optical-Electrical Characteristic Curves◆ **TYPICAL ELECTRICAL-OPTICAL CHARACTERISTICS CURVES**RELATIVE INTENSITY VS. WAVELENGTH(λ_p)

- (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

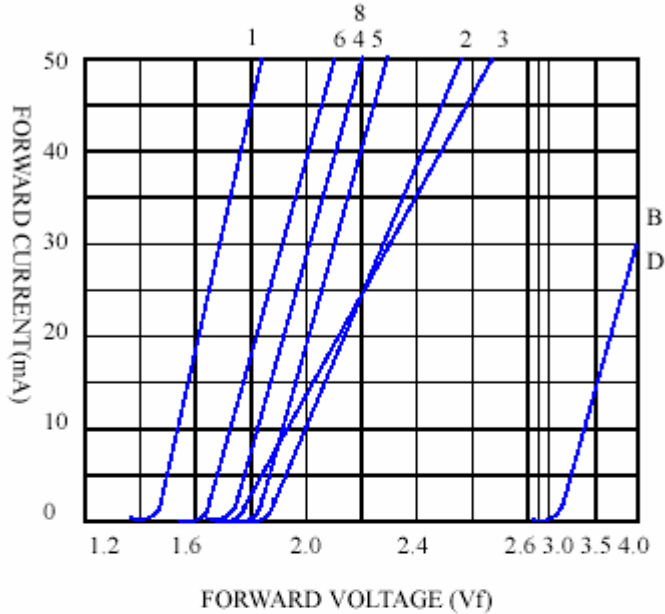
SURFACE MOUNT CHIP LED LAMPS

Part Number: AL-HG633A

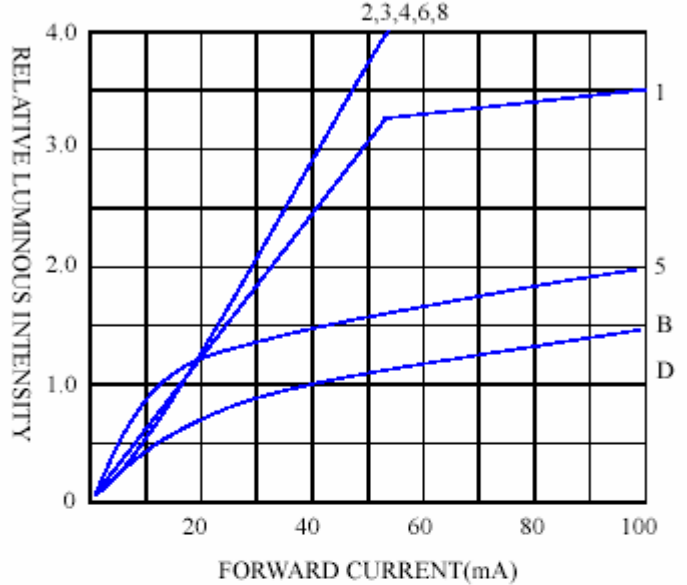
Typical Optical-Electrical Characteristic Curves

◆ CHARACTERISTICS DIAGRAMS

FORWARD CURRENT VS. FORWARD VOLTAGE



RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



FORWARD CURRENT VS. AMBIENT TEMPERATURE

