

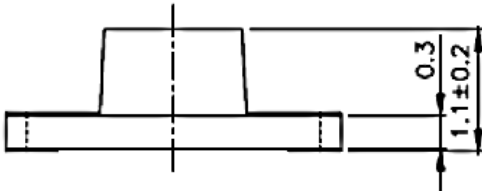
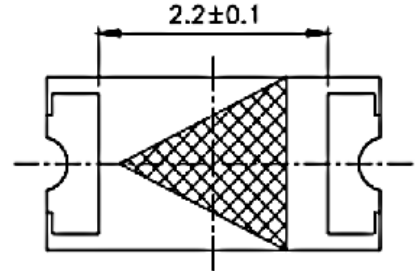
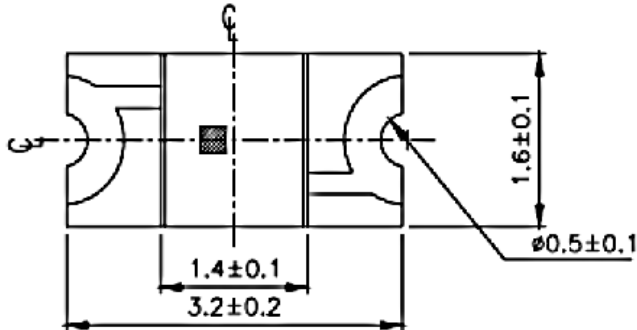


American Opto Plus LED Corp.

L152L-YGC-TR

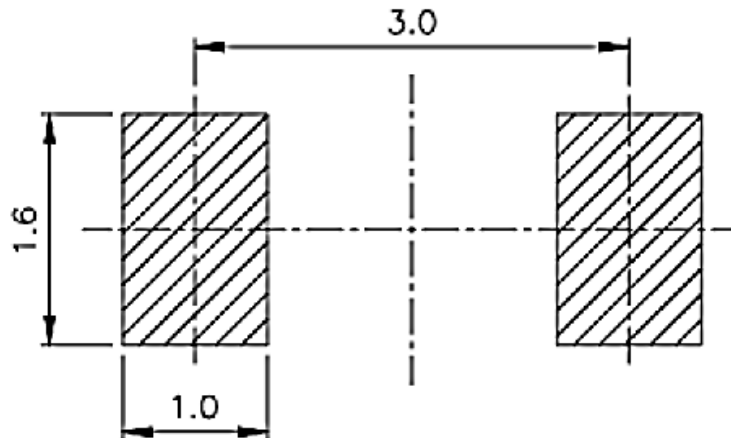
3.2 x 1.6 x 1.1mm YELLOW GREEN SMD LED

PACKAGE OUTLINES



Polarity

RECOMMENDED SOLDER PATTERN



Notes:

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

Part Number	Material	Color	
		Emitted	Lens
L152L-YGC-TR	AlGaInP	Yellow Green	Water Clear



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3.2 x 1.6 x 1.1mm YELLOW GREEN SMD LED

ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	60	mW
Peak Pulse Current Duty 1/10@10KHz	I_{FP}	60	mA
Forward Current Per Chip	I_F	25	mA
Reverse Current @ 5V	I_R	5	V
Electrostatic Discharge	ESD	2000	V
Operating Temperature	T_{OPR}	-40~+85	°C
Storage Temperature	T_{STG}	-40~+90	°C
Soldering Temperature	T_{SOL}	Reflow: 260°C for 10 sec. Hand: 350°C for 3 sec.	

OPTICAL-ELECTRICAL CHARACTERISTICS

(Ta=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Luminous Intensity	I_V	$I_F = 20mA$	14.5	--	36	mcd
Dominant Wavelength	λ_D		567.5	--	575.5	nm
Spectrum Radiation	$\Delta\lambda$		--	20	--	nm
Forward Voltage	V_F		1.75	--	2.35	V
Viewing Angle	$2\theta_{1/2}$		--	130	--	deg
Reverse Current	I_R	$V_R=5V$	--	--	10	μA

Notes:

1. Forward voltage data did not include $\pm 0.1V$ testing tolerance.
2. Luminous intensity data did not include $\pm 11\%$ testing tolerance.
3. Dominant Wavelength data did not include $\pm 1nm$ testing tolerance.



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LUMINOUS INTENSITY CLASSIFICATION

BIN CODE	I _v (lm) at 20mA	
	Min.	Max.
L2	14.5	18.0
M1	18.0	22.5
M2	22.5	28.5
N1	28.5	36.0

DOMINANT WAVELENGTH CLASSIFICATION

GROUP	BIN CODE	I _v (lm) at 20mA	
		Min.	Max.
B	C15	567.5	569.5
	C16	569.5	571.5
	C17	571.5	573.5
	C18	573.5	575.5

FORWARD VOLTAGE CLASSIFICATION

GROUP	BIN CODE	V _F (v) at 20mA	
		Min.	Max.
B	0	1.75	1.95
	1	1.95	2.15
	2	2.15	2.35

Notes:

1. Forward voltage data did not include $\pm 0.1V$ testing tolerance.
2. Luminous intensity data did not include $\pm 11\%$ testing tolerance.
3. Dominant Wavelength data did not include $\pm 1nm$ testing tolerance.

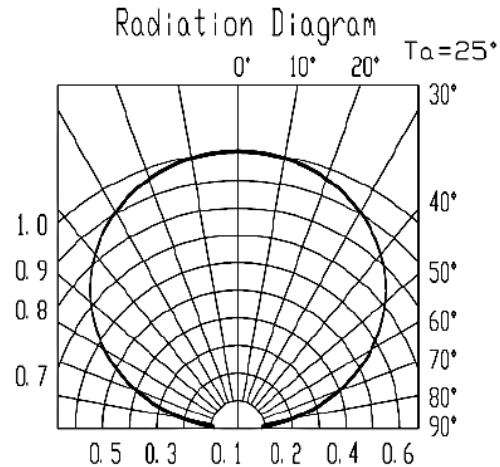
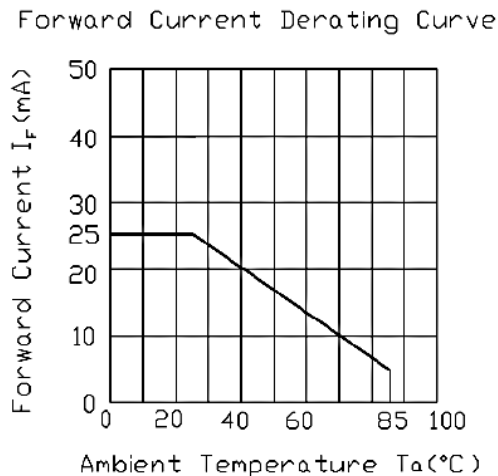
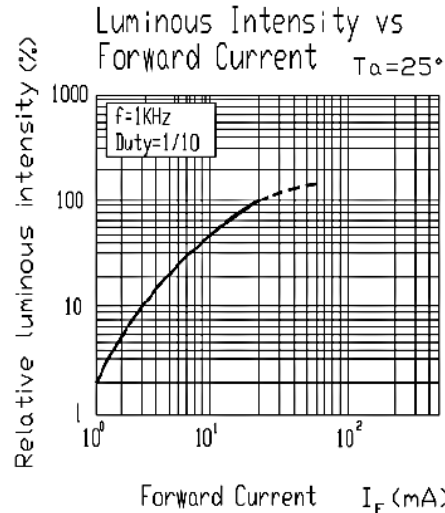
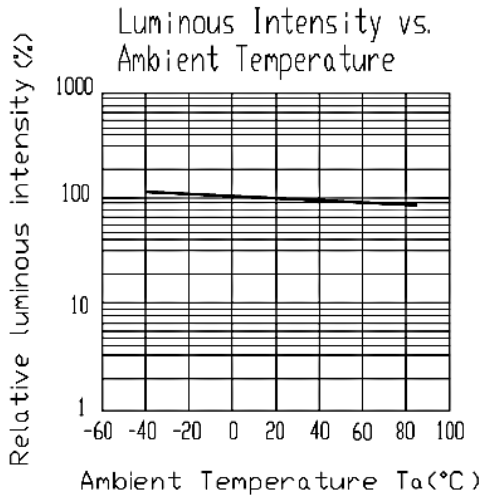
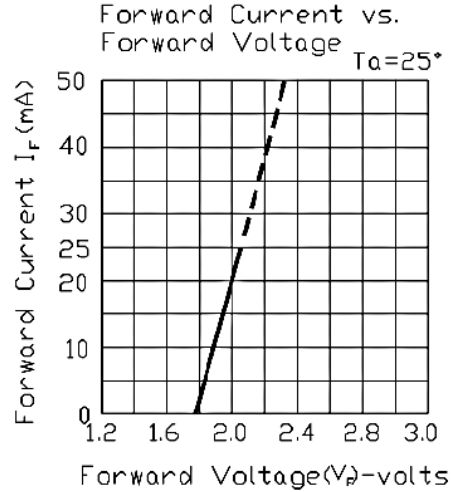
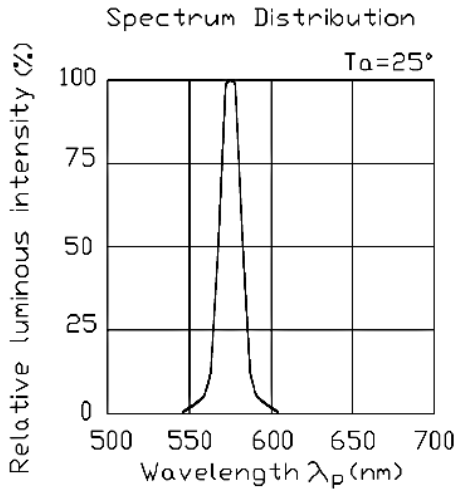


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3.2 x 1.6 x 1.1mm YELLOW GREEN SMD LED

OPTICAL-ELECTRICAL CHARACTERISTICS CURVE



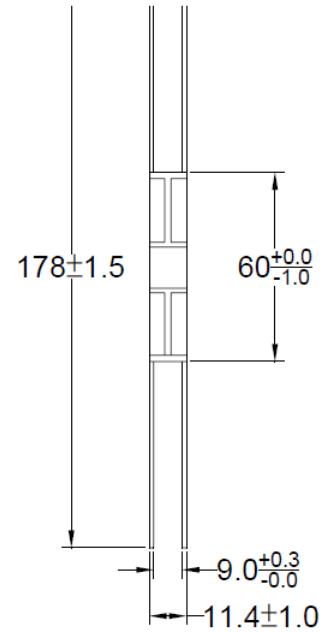
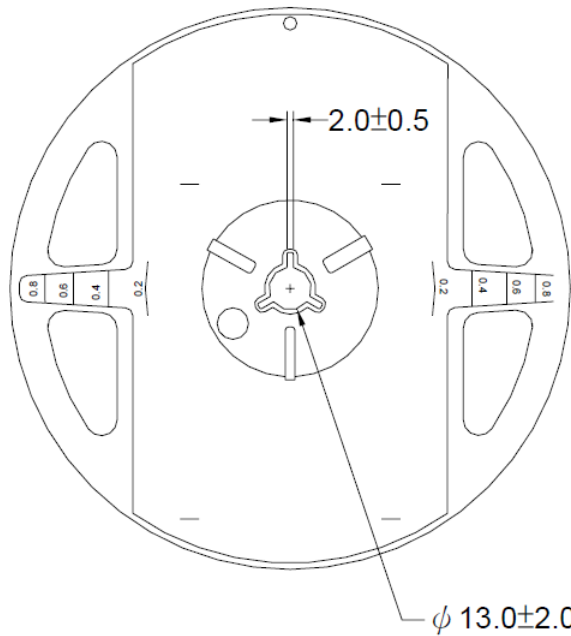
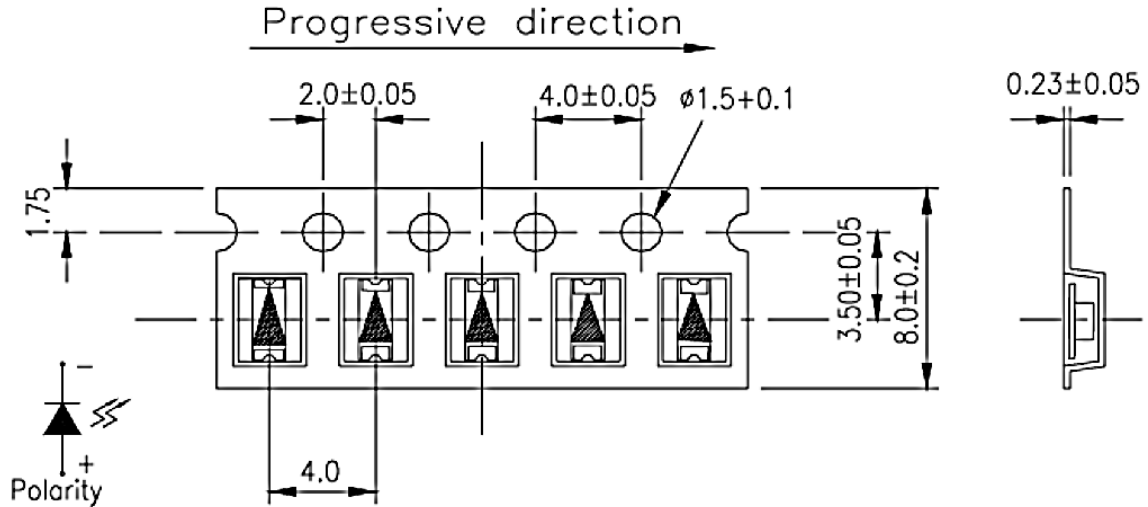


American Opto Plus LED Corp.

L152L-YGC-TR

3.2 x 1.6 x 1.1mm YELLOW GREEN SMD LED

PACKAGING DIMENSION



Notes:

1. Tolerance unless mentioned is ± 0.1 mm, Angle ± 0.5 , Unit=mm.
2. 2000pcs / 7" Reel; 8.0mm Tape



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PRECAUTION FOR USE:

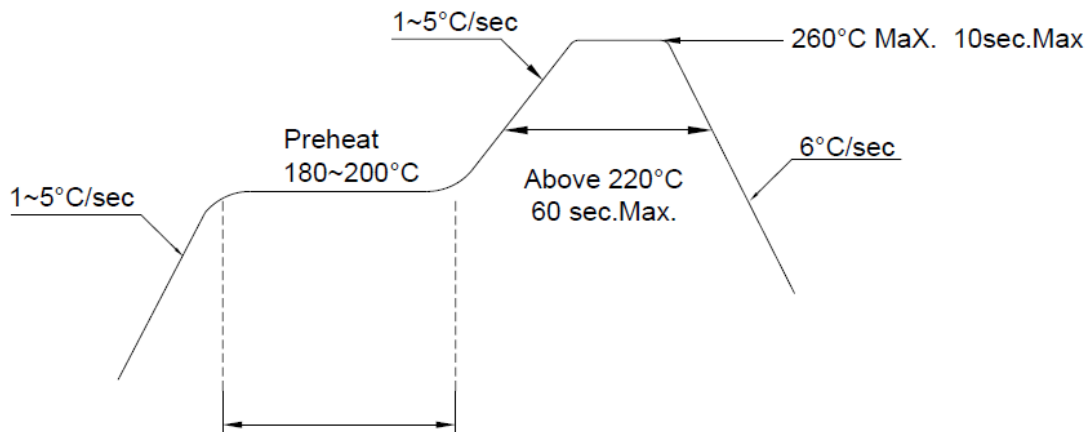
Storage time:

1. Don't open the moisture-resistant bag before LEDs are ready to use.
2. Before use: LEDs should be kept at 30°C or less and 90% RH or less.
3. After use: LEDs floor life is 1 year under 30°C or less and 60% RH or less. If unused LEDs remain, it should be stored in moisture-resistant package.
4. If the LEDs have exceeded the storage time or the moisture absorbent material (silica gel) has faded, the baking treatment of 60±5°C for 24 hrs should be performed.

Over Current-Protection

The LEDs are sensitive parts, slight voltage shift will cause big current change and will cause burn out. Customer must apply resistors for protection.

LED SOLDERING

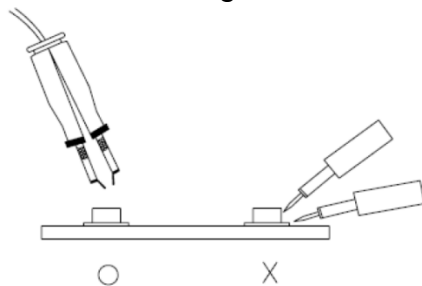


Notes:

1. Reflow soldering should not be done more than two times.
2. When soldering, do not put stress on the LEDs during heating.
3. After soldering, do not warp circuit board.

REPAIRING

In principle repair should not be done after the LEDs have been soldered. When repairing is unavoidable, it should be confirmed beforehand not to be damaged whether the characteristics of the LEDs by repairing and a double-head soldering iron should be used.





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RELIABILITY TEST:

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

Confidence level: 90%

LTPD: 10%

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