

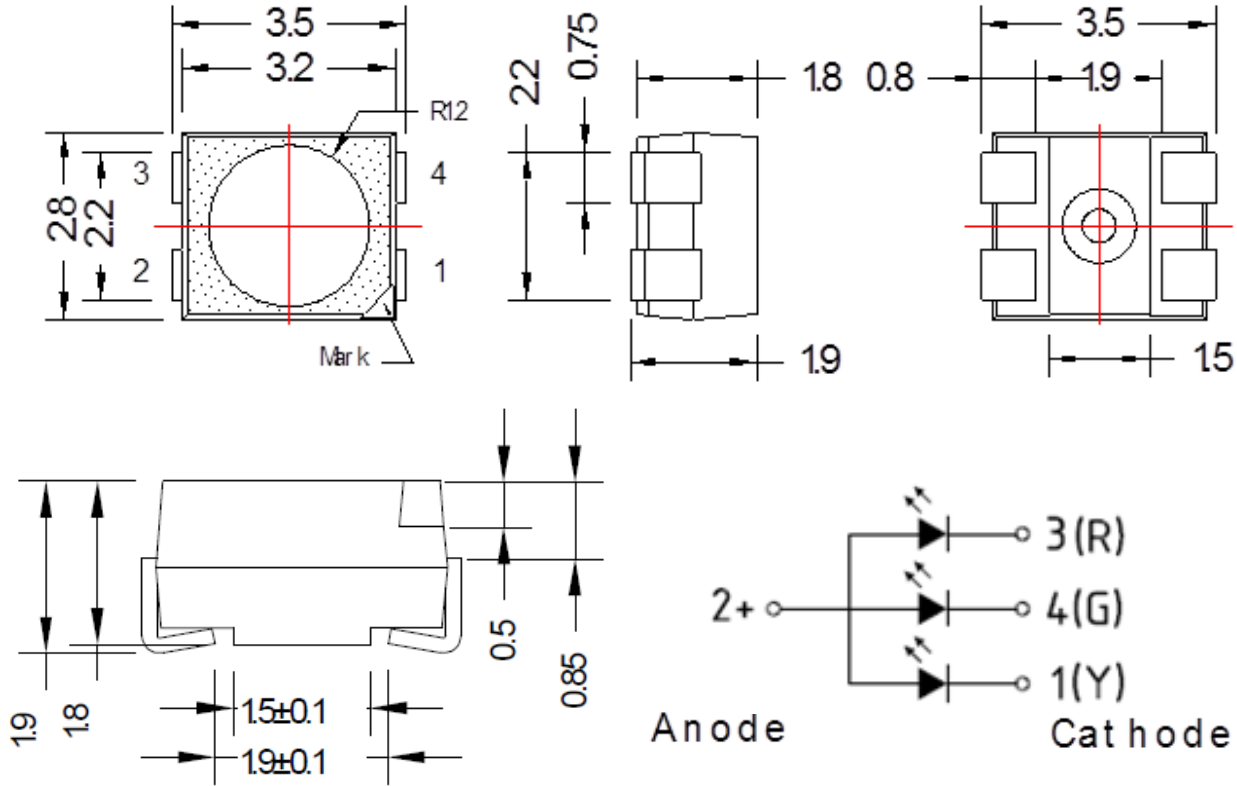


American Opto Plus LED Corp.

L955LELPGLYC-BF

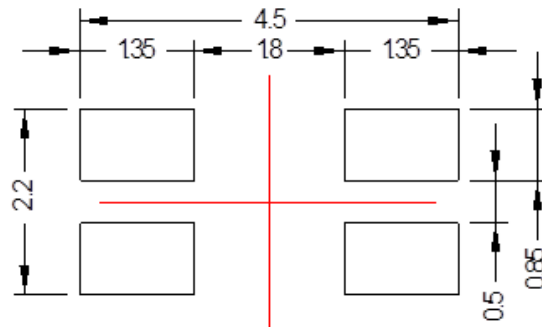
3.5 x 2.8 x 1.9 mm RGY PLCC-4 LED

PACKAGE SPECIFICATIONS



Item	Materials
Package	Heat-Resistant Polymer (Black Face)
Encapsulating Resin	Silicone
Electrodes	Ag Plating Copper Alloy

RECOMMENDED SOLDERING PAD PATTERN



Notes: 1. All dimensions are mm.

2. Electrical connection between all cathodes is recommended.



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ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Parameter	Symbol	Red	Green	Yellow	Unit
DC Forward Current	I _F	30	25	25	mA
Peak Pulsed Forward Current*	I _{FP}	100	100	100	mA
Reverse Voltage	V _R	5	5	5	V
Power Dissipation Single Color	P _D	72	90	90	mW
Total Power Dissipation**	P _{TOT}	250			mW
Human Body Mode	HBM	>1000			V
Operating Temperature	T _{OPR}	-30 ~ +85			°C
Storage Temperature	T _{STG}	-40 ~ +100			°C
Solder Temperature	T _{SOL}	Reflow soldering: 260°C for 5 sec Hand soldering: 350°C for 3 sec			

* I_{FP} Conditions: Pulse width ≤ 10msec and duty ≤ 1/10

** Value for total power dissipation when two or more devices are lit simultaneously.

OPTICAL-ELECTRICAL CHARACTERISTICS

(Ta=25°C)

Parameter	Symbol	Condition	Min	Typ	Max	Unit	
Forward Voltage	V _F	I _f =20mA	R	--	2.1	2.4	V
			G	--	3.2	3.6	
			Y	--	2.1	2.4	
Dominant Wavelength	λ _D		R	620	625	630	nm
			G	525	530	535	
			Y	585	590	595	
Peak Wavelength	λ _P		R	--	635	--	nm
			G	--	525	--	
			Y	--	593	--	
Luminous Intensity	I _V	R	0.55	0.85	--	cd	
		G	1.15	1.90	--		
		Y	0.55	0.8	--		
Luminous Flux	Φ _V	R	--	2.2	--	lm	
		G	--	3.9	--		
		Y	--	2.1	--		
Viewing Angle	2θ ½	--	--	120	--	nm	
Reverse Current	I _R	V _R =5V	--	--	--	50 μA	



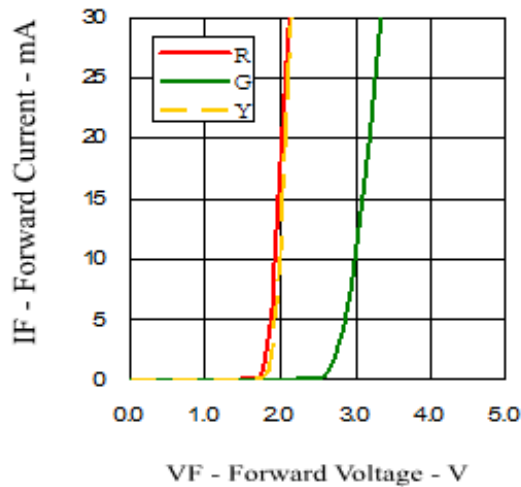
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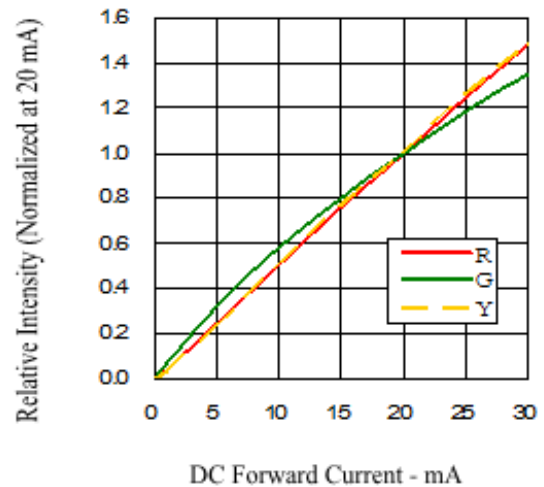
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ELECTRICAL-OPTICAL CHARACTERISTIC CURVES

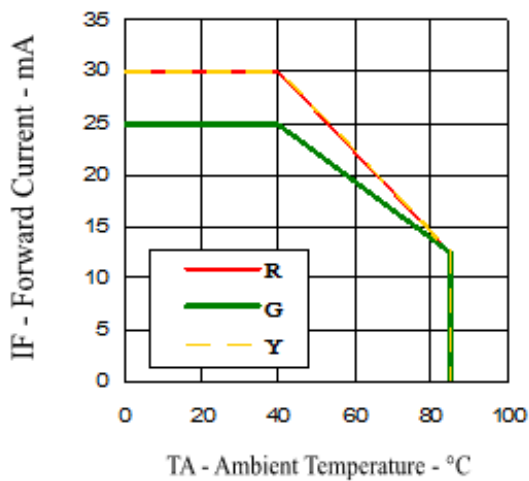
Forward Current vs. Forward Voltage



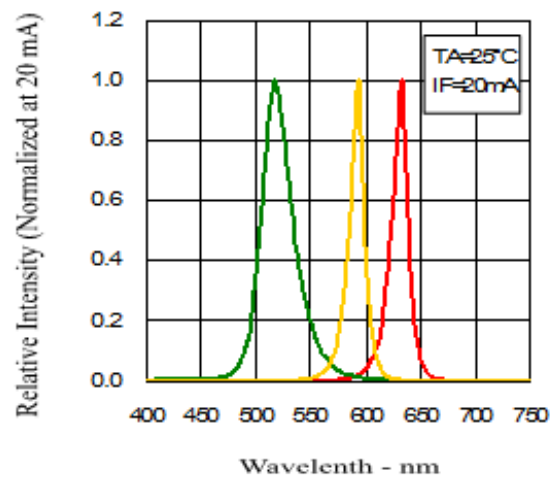
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temperature



Relative Intensity vs. Wavelength





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LUMINOUS INTENSITY BIN TABLE

IF=20mA

Rank name	R (mcd)	G (mcd)	Y (mcd)
1	520~680	1150~1500	520~680
2			680~880
3			880~1150
4		1500~1900	520~680
5			680~880
6			880~1150
7		1900~2500	520~680
8			680~880
9			880~1150
10	680~880	1150~1500	520~680
11			680~880
12			880~1150
13		1500~1900	520~680
14			680~880
15			880~1150
16		1900~2500	520~680
17			680~880
18			880~1150
19	880~1150	1150~1500	520~680
20			680~880
21			880~1150
22		1500~1900	520~680
23			680~880
24			880~1150
25		1900~2500	520~680
26			680~880
27			880~1150

※ Tolerance for each bin limit is $\pm 15\%$



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COLOR BIN TABLE

IF=20mA

Rank name	Min (nm)	Max (nm)
R1	620	625
R2	625	630
G1	520	525
G2	525	530
Y1	585	590
Y2	590	595

※ Tolerance for each bin limit is ± 1 nm

Note

1. One delivery will include several color ranks and I_V ranks of products.
The quantity-ratio of the different rank is decided by AOP.
2. Bin Name typed on the Label: IV RANK + Color Rank.
For Example, **BIN 2R1G2Y2 Means R IV:520mcd~680mcd and Color: 615nm~620nm ,
G IV: 1150mcd~1500mcd and Color:525nm~530nm ,Y IV: 680mcd~880mcd and Color:
590nm~595nm**

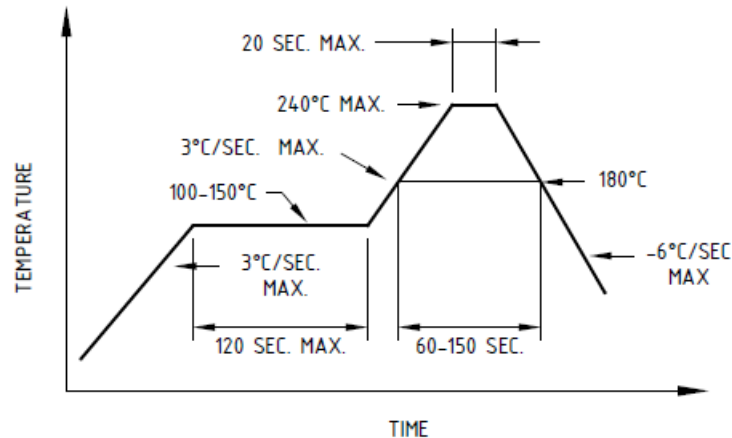


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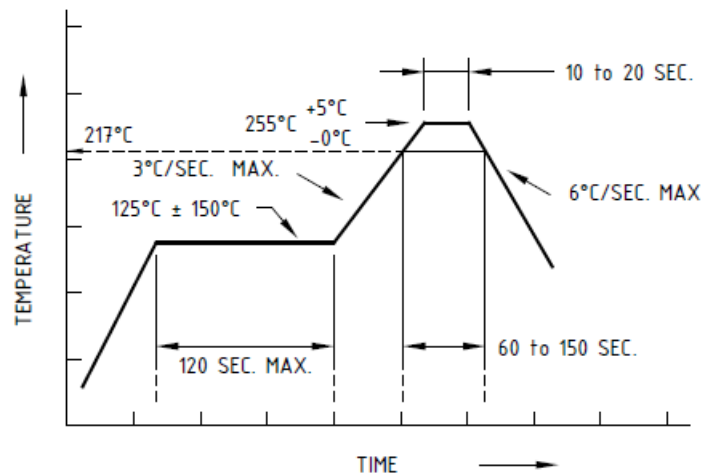
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SOLDERING CONDITIONS



Recommended reflow soldering profile



Recommended Pb-free reflow soldering profile

- Repairing should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the Characteristics of the LEDs will or will not be damaged by repairing.
- Reflow soldering should not be done more than two times.
- When soldering, do not put stress on the LEDs during heating.
- After soldering, do not warp the circuit board.

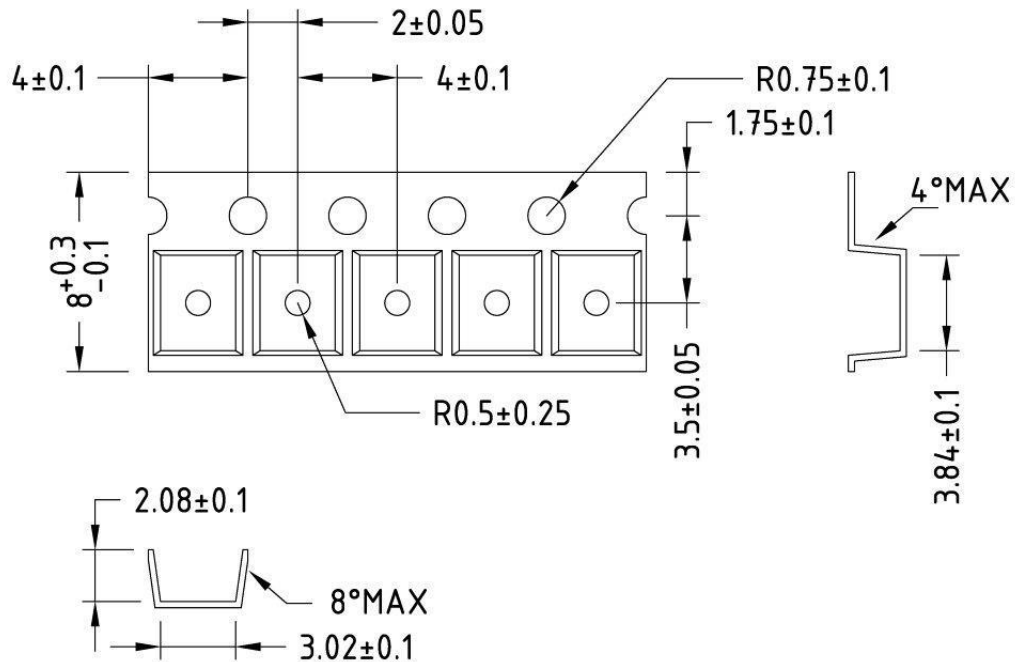


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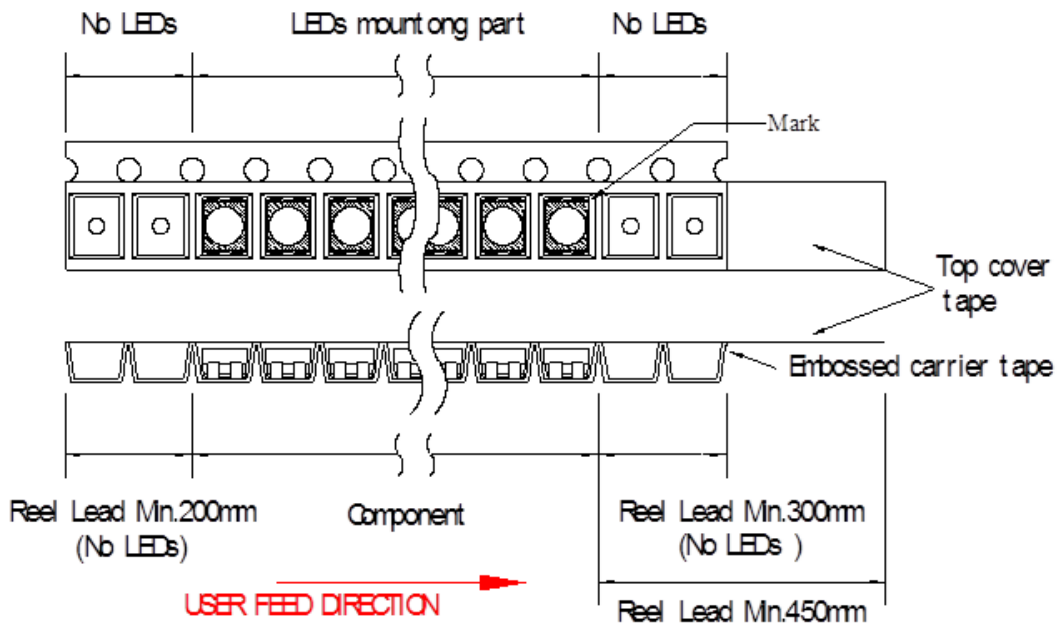
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TAPE DIMENSION



TAPE LEADER AND TRAILER DIMENSION



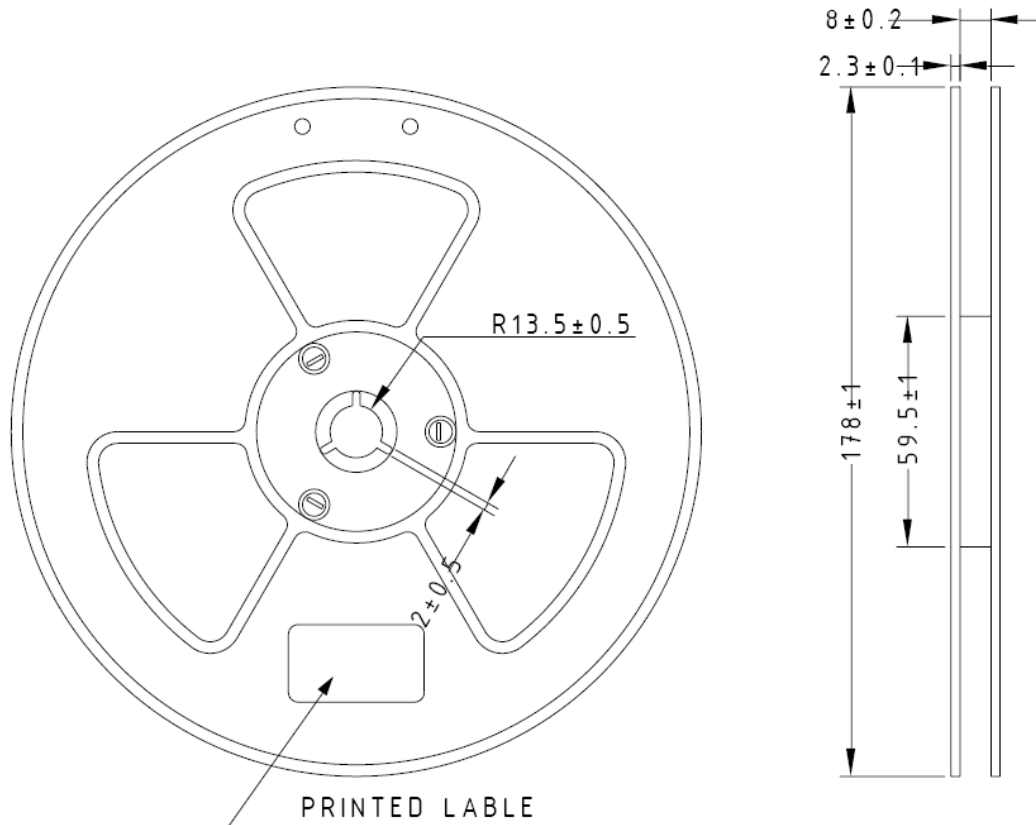


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REEL DIMENSION



Note: Baking is required under the following conditions:
The pack has been opened for more than 48 hours.
Baking recommended conditions:
 $60 \pm 5^\circ\text{C}$ for 20 hours.

Reel Qty: 2000 pcs



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MOISTURE SENSITIVITY

AOP's SMD LEDs are shipped in sealed, moisture-barrier bags (MBB) designed for long shelf life. If SMD LED has exposed with moist environments before soldering, this may cause damage to SMD LED during soldering (reflow) operation.

STORAGE / FLOOR TIME

Condition	Temperature(C)	Humidity(RH)	Period of Time
Before Open	30	60	6 month from shipping date
After Open	30	60	Within 48 hours

※ MSL of this product are MSL4, please seem IPC/JEDEC STD020D for more detail.

※ LEDs reach floor time may be damaged while soldering/reflow processing, please discard the LED.

※ If RH indicator card show 60% RH when unseal the package, please bake/discard the LED.

RESEAL

※ AOP's aluminum MBB may reuse as to reseal the unused LED if MBB has not damaged or have any holes on it.

※ Moisture absorbent material (Silica gel) may be reuse if it does not become pink.

※ Proper resealed LED's Floor time will NOT RESET, only stop counting until open.

※ If RH indicator card show 60%RH when open the package, please bake/discard the LED.