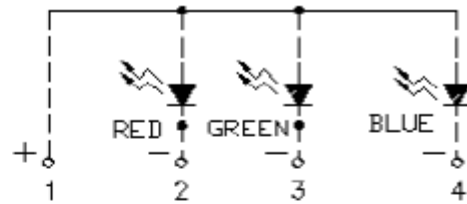
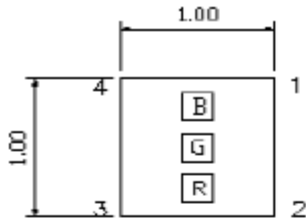




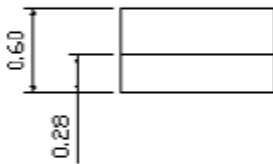
American Opto Plus LED Corp. L201DS-QEPGBG2S

1.0mm x 1.0mm x 0.6mm RGB SMD LED (Group 2 Diffused Lens)

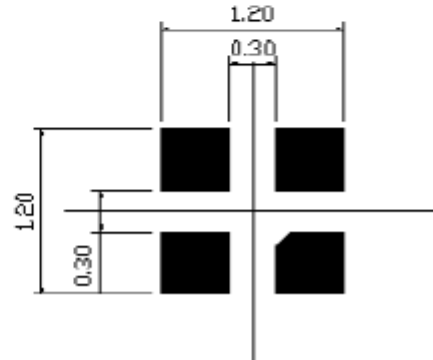
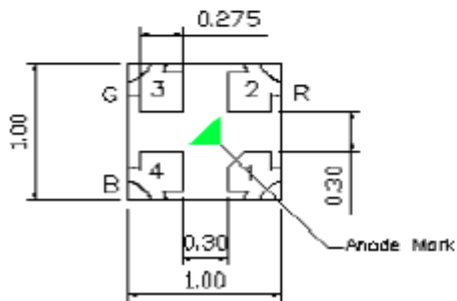
PACKAGE OUTLINES



Polarity



For reflow soldering (Propose)



Note: All dimensions are in millimeters. Tolerance is ± 0.1 mm unless otherwise noted.

Part Number	Color
L201DS-QEPGBG2S	Red
	Green
	Blue



American Opto Plus LED Corp.

L201DS-QEPGBG2S

1.0mm x 1.0mm x 0.6mm RGB SMD LED (Group 2 Diffused Lens)

ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Parameter	Symbol	Ratings			Unit
		R	G	B	
Power Dissipation	P_D	50	60	60	mW
Peak Forward Current (Duty 1/10@1KHz)	I_{FP}	50	50	50	mA
Forward Current	I_F	20	20	20	mA
Reverse Voltage	V_R	5	5	5	V
Electrostatic Discharge (HBM)	ESD	2000	1000	1000	V
Junction Temperature	T_J	115			°C
Operating Temperature	T_{OPR}	-40~+85			°C
Storage Temperature	T_{STG}	-40~+110			°C
Soldering Temperature	T_{SOL}	260			°C

OPTICAL-ELECTRICAL CHARACTERISTICS

(Ta=25°C)

Parameter	Symbol	Test Condition	Color	Value			Unit
				Min	Typ	Max	
Luminous Intensity	I_v	$I_F=5mA$	R	17	--	25	mcd
			G	54	--	78	
			B	11.5	--	17	
Dominant Wavelength	λ_d	$I_F=5mA$	R	--	621	--	nm
			G	--	526	--	
			B	--	467	--	
Reverse Current	I_R	$V_R=10V$	--	--	--	0.5	μA
			--	--	--		
			--	--	--		
Forward Voltage	V_F	$I_F=5mA$	R	1.7	--	2.3	V
			G	2.5	--	3.5	
			B	2.5	--	3.5	
Viewing Angle	2θ1/2	$I_F=5mA$	R	--	115	--	deg
			G	--		--	
			B	--		--	

Notes:

1. Tolerance of Luminous Intensity: ±10%
2. Tolerance of Dominant Wavelength: ±1nm
3. Tolerance of Forward Voltage: ±0.1V



American Opto Plus LED Corp.

L201DS-QEPGBG2S

1.0mm x 1.0mm x 0.6mm RGB SMD LED (Group 2 Diffused Lens)

LUMINOUS INTENSITY CLASSIFICATION

Bin Code	Iv (mcd) @ 5mA	
	Min	Max
E1	17	25
K1	54	78
A1	11.5	17

Note: @5mA/Ta=25°C, Tolerance:±10%

DOMINANT WAVELENGTH CLASSIFICATION

Bin Code	λ _D (nm) @ 5mA	
	Min	Max
R1	618	624
G1	524	530
B1	464	470

Note: @5mA/Ta=250C, Tolerance:±1nm

LUMINOUS VOLTAGE CLASSIFICATION

Bin Code	(V) @ 5mA	
	Min	Max
R0	1.7	2.3
G0	2.5	3.5
B0	2.5	3.5

Note: @5mA/Ta=25°C, Tolerance:±0.1V

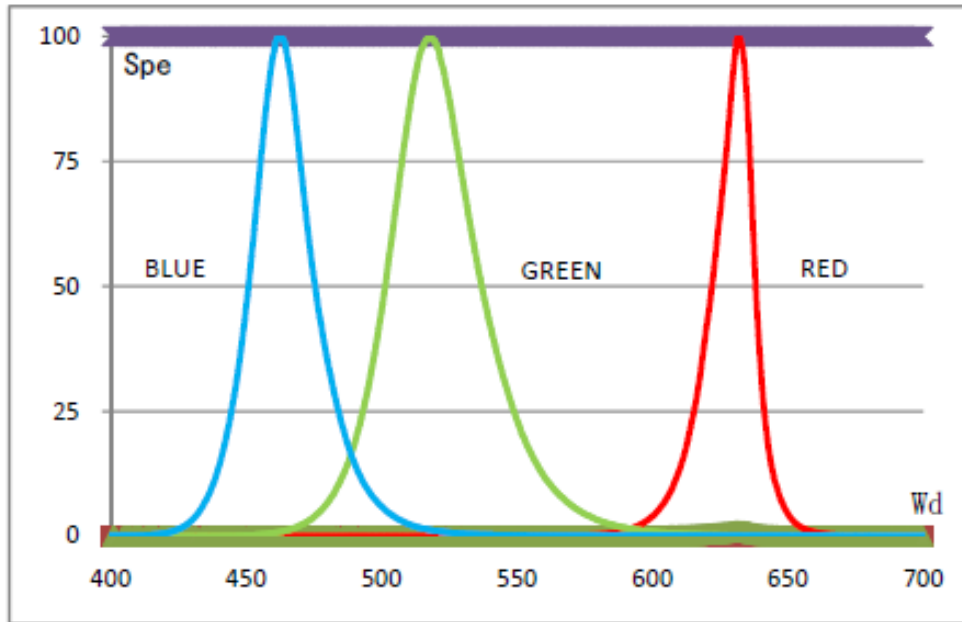


American Opto Plus LED Corp. L201DS-QEPGBG2S

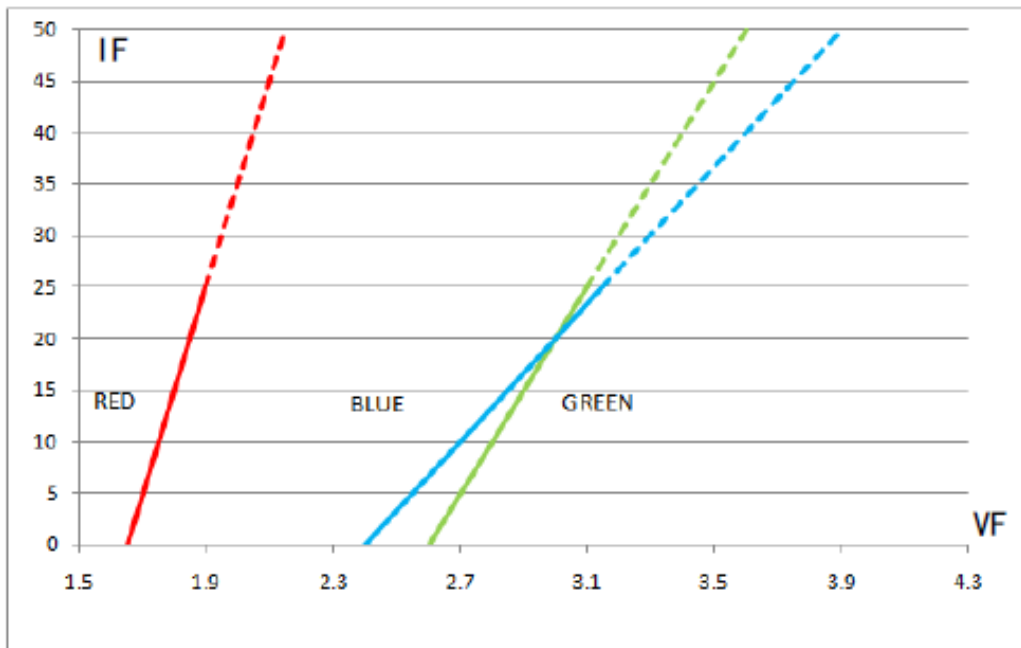
1.0mm x 1.0mm x 0.6mm RGB SMD LED (Group 2 Diffused Lens)

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES

Spectrum Distribution



Forward Current vs. Forward Voltage

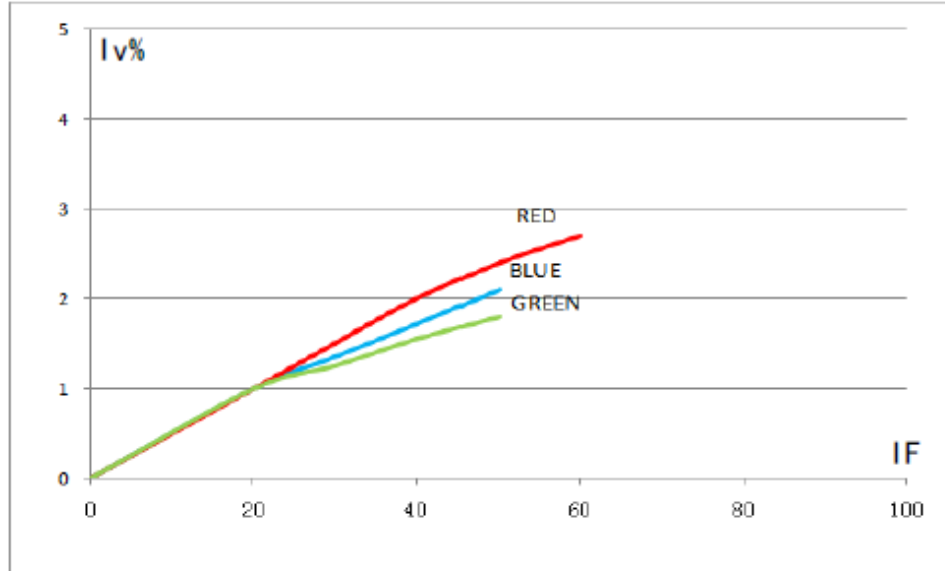




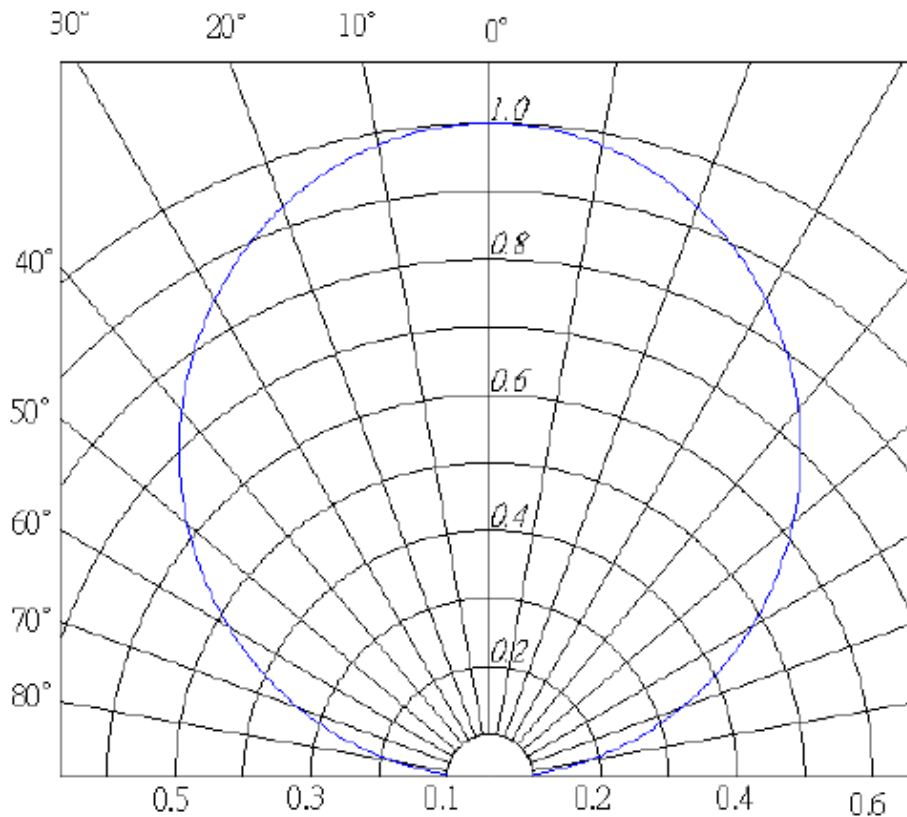
American Opto Plus LED Corp. L201DS-QEPGBG2S

1.0mm x 1.0mm x 0.6mm RGB SMD LED (Group 2 Diffused Lens)

Relative Luminous Intensity vs. Forward Current



Radiation Diagram

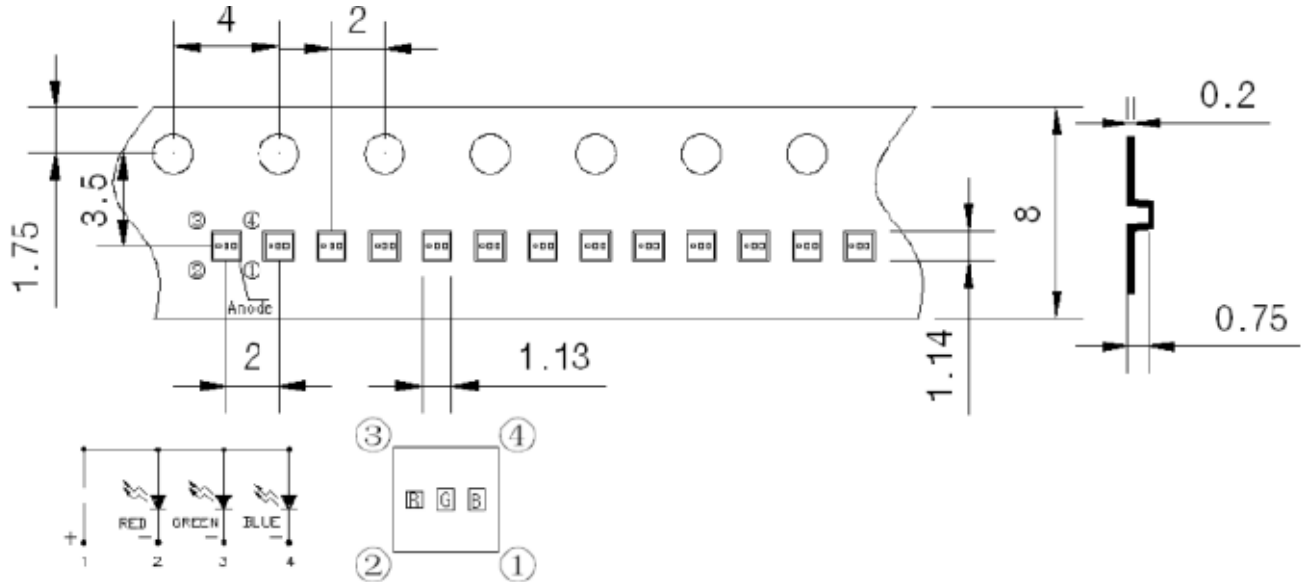




American Opto Plus LED Corp. L201DS-QEPGBG2S

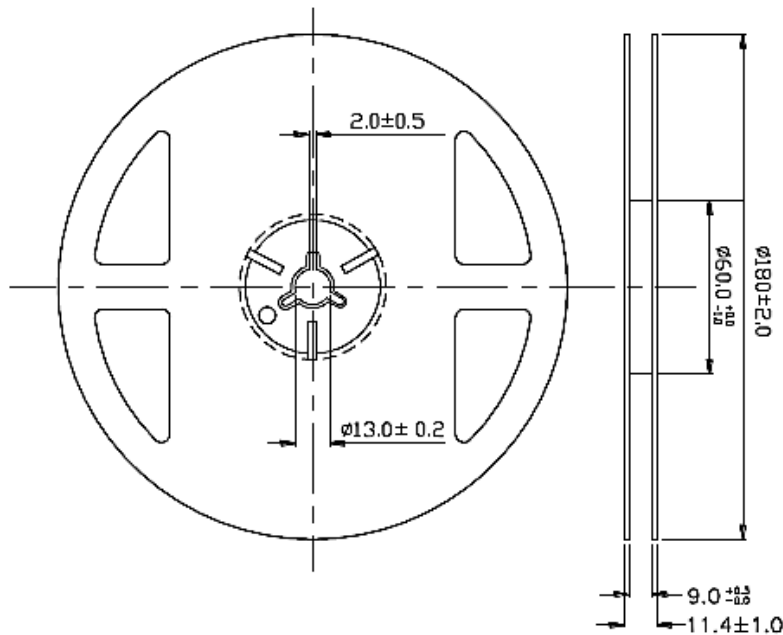
1.0mm x 1.0mm x 0.6mm RGB SMD LED (Group 2 Diffused Lens)

CARRIER TAPE DIMENSIONS



Note: Dimensions are in millimeters; Tolerance unless mentioned are ± 0.1 mm

REEL DIMENSIONS



Reel Quantity: 18,000pcs

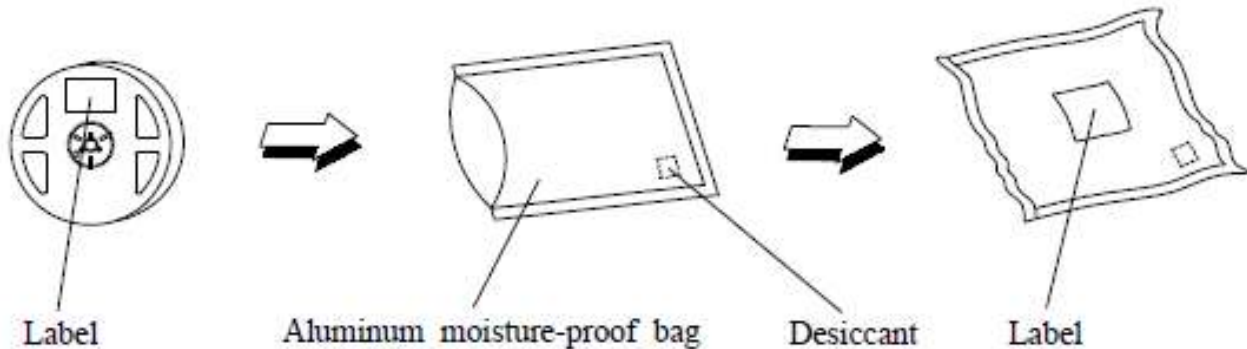
Notes: Tolerance is ± 0.1 mm unless otherwise noted. Unit=mm



American Opto Plus LED Corp. L201DS-QEPGBG2S

1.0mm x 1.0mm x 0.6mm RGB SMD LED (Group 2 Diffused Lens)

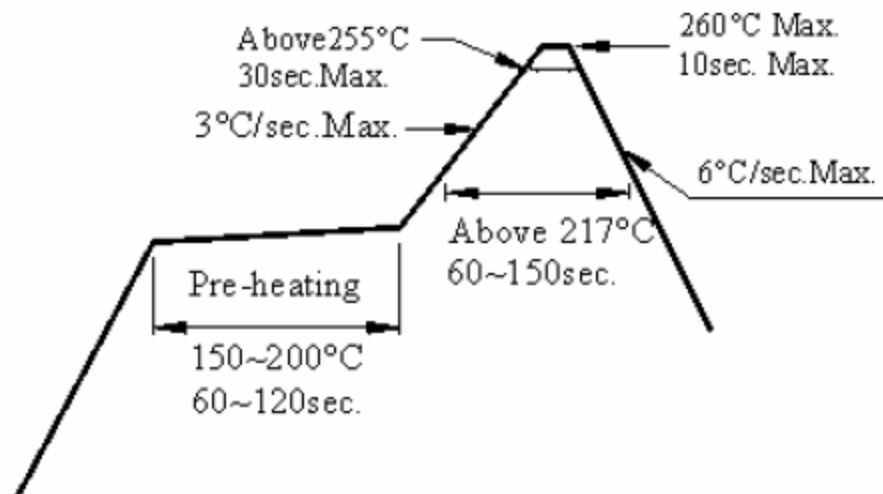
MOISTURE RESOSTANT PACKING



Note. Warranty time: 1 year

RECOMMENDED SOLDERING CONDITIONS

- PB-Free Solder temperature profile



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 the circuit board.



American Opto Plus LED Corp.


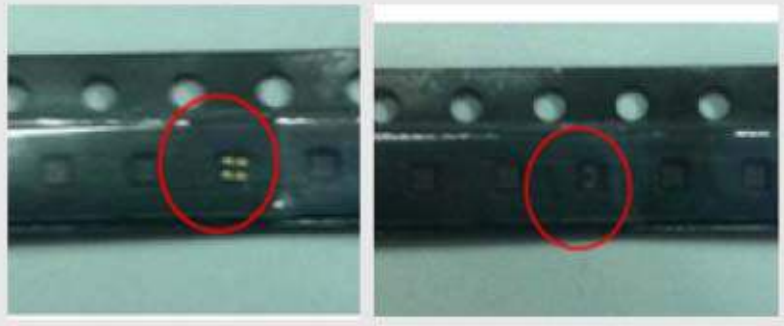


L201DS-QEPGBG2S

1.0mm x 1.0mm x 0.6mm RGB SMD LED (Group 2 Diffused Lens)

STORAGE

- The product is packaged in anti-static aluminum foil bag with desiccant and humidity card.
- Storage conditions: when vacuum packaging, storage at 10 DEG ~30 DEG, and humidity is less than 60% RH.
- After unpacking, please at 10 DEG ~30 DEG, humidity is less than or equal to 60% RH, and completed in the 12H patch, over time, please Re – bake dehumidification Condition: 60 degrees x3h.

APPEARANCE INSPECTION SPECIFICATION

Item	Reference	Judge
Tape Explosion		NG
LED Overturn		NG
Tape position shift		NG
Two LED in one case		NG



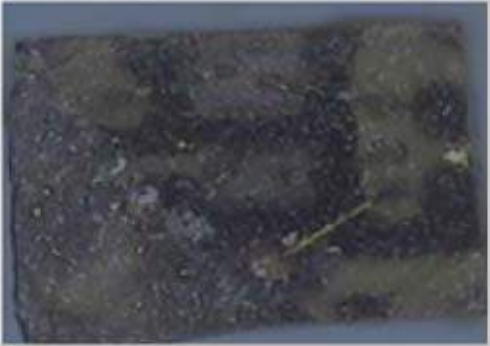

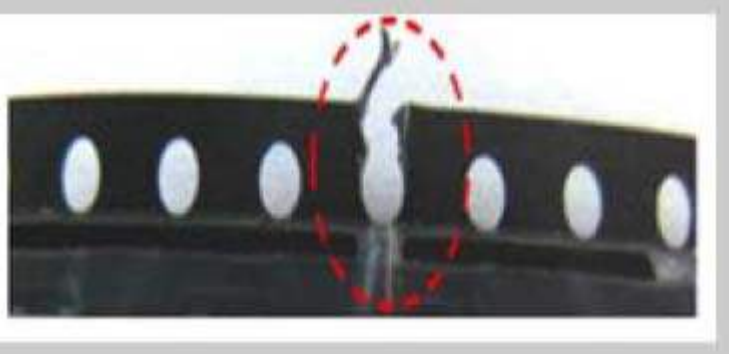


American Opto Plus LED Corp.

L201DS-QEPGBG2S

1.0mm x 1.0mm x 0.6mm RGB SMD LED (Group 2 Diffused Lens)

APPEARANCE INSPECTION SPECIFICATION

Item	Reference	Judge
Tape Position Shifted		Two space case connect NG Less than 10 in a reel OK
Damaged Silicon		NG
Silicon Surface Scratch		NG
Impurity		NG
Damaged Tape		NG



American Opto Plus LED Corp.

L201DS-QEPGBG2S

1.0mm x 1.0mm x 0.6mm RGB SMD LED (Group 2 Diffused Lens)

APPEARANCE INSPECTION SPECIFICATION

Item	Reference	Judge
Broken Reel		NG
Tape Burr		NG
Bent Reel		NG



American Opto Plus LED Corp.

L201DS-QEPGBG2S

1.0mm x 1.0mm x 0.6mm RGB SMD LED (Group 2 Diffused Lens)

OTHER

- Production environment: it is recommended to operate 20 deg~30 deg&30%~60%RH
- The service temperature shall be controlled below 280 degrees, and the continuous heating time shall not exceed 30S.
- When repairing the sharp object should be directly punched into the colloid, and when picking the material, it is recommended to clamp both ends of the PCB.

