

Model No.	WR82063046SC0201	File No.	YW0711027	Ver.	02	01	Date	2008-01-25
-----------	------------------	----------	-----------	------	----	----	------	------------

DATA SHEET

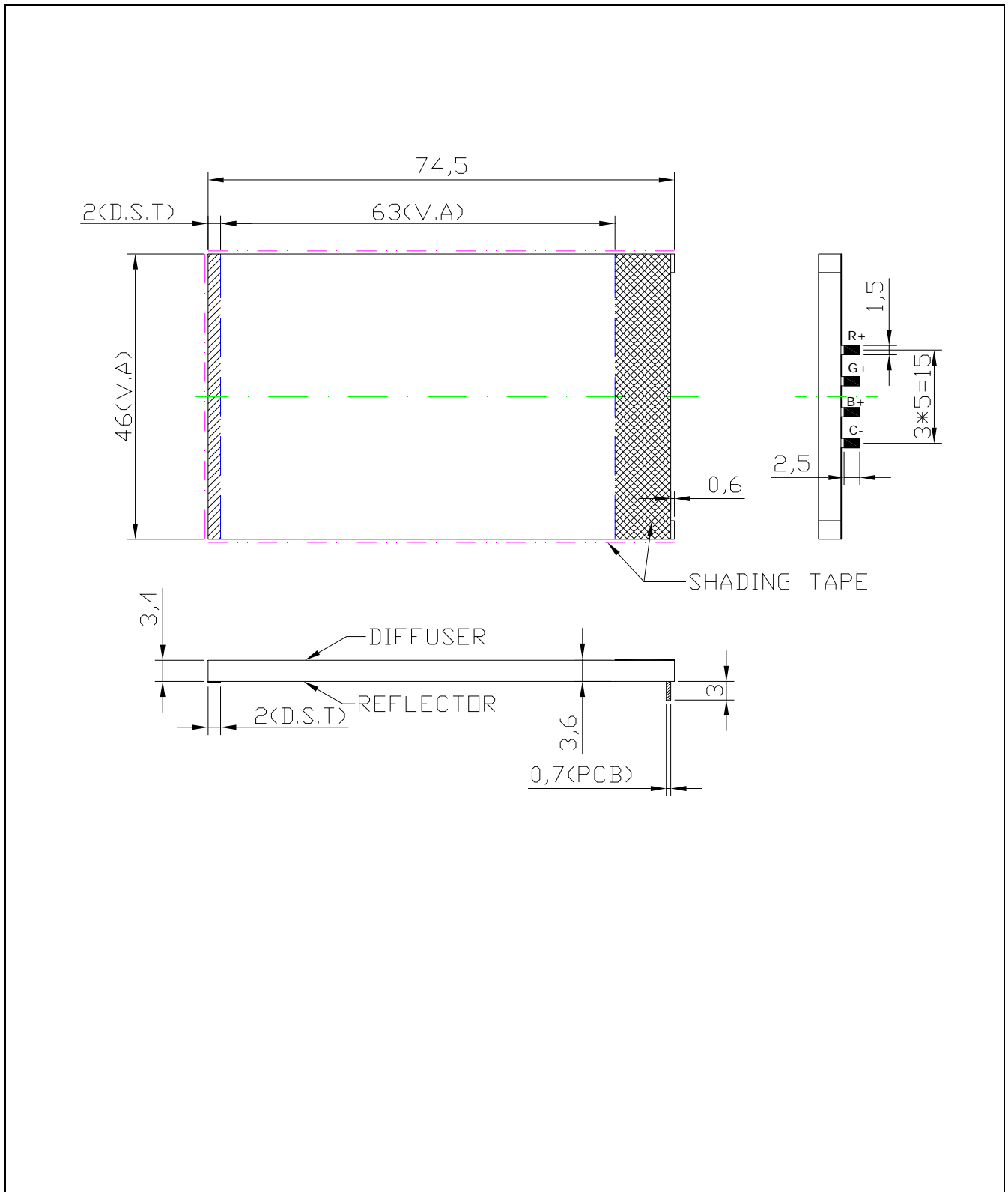
1. Brief Description:

GDL-S1025RGB02-3 (WR82063046SC0201) is a Ultra Bright Backlight Product by Side lighting.

Available Viewing Area (V.A) 63×46 (mm) ;

Color of Light: Red/Green/Blue (RGB).

2. Dimension Specifications: (all units in mm; unspecified tolerance: XX.=±0.3,X.=±0.2)



3.SMD Optoelectronic parameter (Ta=25°C)

Item	Symbol	MIN	Typical	MAX	Unit	Condition
Forward Voltage	Vf	1.8(R)/2.9	2.0(R)/3.1 (G/B)	2.2(R)/3.4	mA	If=10mA (R)

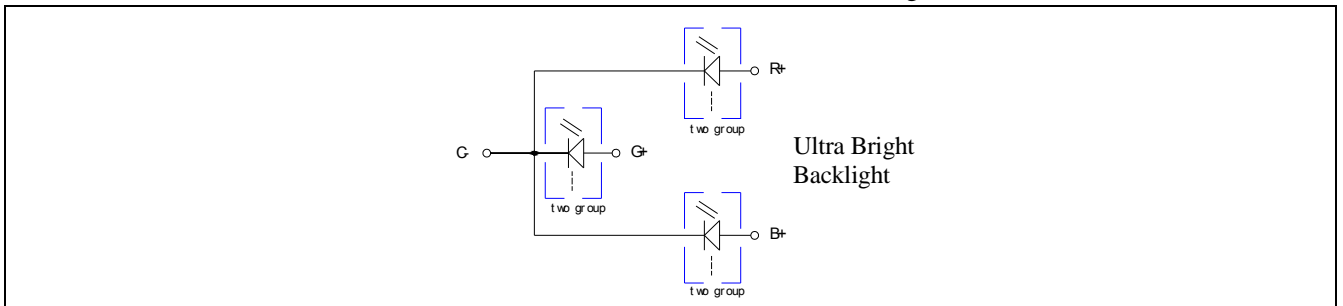
		(G/B)		(G/B)		/15mA (G/B)
Reverse Current	I_r			10	μA	$V_r=5V$
Dominant Wave Length	λ_d	620 (R)	625 (R)	630 (R)	nm	If=10mA (R) /15mA (G/B)
		515 (G)	520 (G)	525 (G)		
		460 (B)	465 (B)	470 (B)		
Luminous Intensity	I_v		150(R)/180(G)/90(B)		mcd	If=10mA (R) /15mA (G/B)

4. Optoelectronic Characteristics ($T_a=25$)

1) Testing Circuit:

(See below, A= anode, K= cathode, LED Chips: 1*2=2 SMDs)

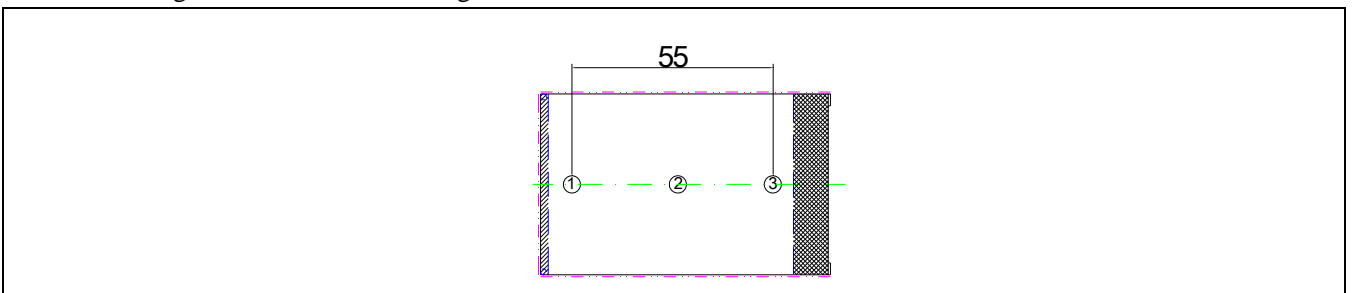
Forward Current (If)= 20mA (R)/30mA(G/B)(Constant); Forward Voltage (Vf)=2.2V(R)/3.4V(G/B)(Max.)



2) Testing Method:

Testing Instrument: ST-86LA Brightness Meter (Constant Power Supply)

Testing Position: See the Testing Position below.



3) Testing Data ($T_a=25$)

Item	Symbol	MIN	Typical	MAX	Unit	Condition
Forward Voltage	V_f	1.8(R)/2.9(G/B)	2.0(R)/3.1 (G/B)	2.2(R)/3.4(G/B)	V	If=20mA (R)

						/30mA (G/B)
Reverse Current	Ir			3*20	μA	Vr=3*5V
Dominant Wave Length	λd	620 (R)	625 (R)	630 (R)	nm	If=20mA (R) /30mA (G/B)
		515 (G)	520 (G)	525 (G)		
		460 (B)	465 (B)	470 (B)		
Brightness	Lv		35(R)/122(G)/45(B)		cd/m ²	If=20mA (R) /30mA (G/B)
Uniformity	Δ%	80			%	If=20mA (R) /30mA (G/B)

5. Absolute Maximum Rating: (Ta=25)

Item	Symbol	Condition	Rating	Unit
Absolute Maximum Forward Current	Ifm		3*40	mA
Peak Forward Current	Ifp	1msec Pulse 1/10 Duty	3*80	mA
Reverse Voltage	Vr		3*5	V
Power Dissipation	Pd		3*88(R)/3*136(G/B)	mW
Operating Temperature	Topr		-20 ~ +70	
Storage Temperature	Tstg		-30 ~ +75	
Storage Humidity	RH		40 ~ 85	%

6. Precautions.

- 1) If Operating Temperature > 25 °C, Ifm, Ifp and Pd must be lower. Lower ratings: -0.36mA/°C, -0.86mA/°C and -0.75mW/°C for Forward current, Pulse current and Power Dissipation respectively. Operating current must not be 60% above Ifm and Ifp correspondingly.
- 2) Please pay attention to the condition of storage. If the condition doesn't reach the level, the film's capability will get down. The best storage condition is: Temperature 25 ±10 , Humidity 65 RH ±25 RH.
- 3) Jointing conditions: Max power of Iron: 30W, Peak Temperature: 280°C, Longest lasting time of jointing: 3s, Min space between soldering spot and noumenon: 3mm. Soldering capability: 2s later of product pins being in stannum crucible with temperature of (235±5) °C, the pins are easy to stick to stannum.

4) If the LEDs are electrostatic damaged, they will show some adverse characteristics, such as an increase in leakage current, increase or reduce static voltage, irregular or luminescence (darker etc.) in low-current testing; Therefore, all touching with the equipment and apparatus products to be reliable grounding. All workers must wear anti-static products contact appliances (such as anti-static wrist band or anti-static gloves, etc.)

5) Overcurrent protection: use resistance to protect the product, protection resistance $R = (V_{cc} - V_f) / I_f$, V_{cc} stands for the power's voltage; V_f stands for the forward voltage of LEDs; I_f stands for the forward current.

6) When inspecting and using the backlight units, the current is required to be in conformity for each LED with I_f , so that the backlight could hold the same brightness.

7) For not doing any harm to LEDs, V_f & I_f should not be higher than the rating in this data sheet.

8) Output brightness and the temperature have inverse ratio. So it should reduce fever and do a certain heat treatment.

9) In use, the heated temperature of backlight should not exceed the solution temperature of epoxy encapsulation or the softening temperature of the light guide plate. Otherwise backlight may be easily deformed or have other failures.

7. Dimension Measurement.

1) Measuring Instrument: Vernier Caliper.

2) Criterion: The result of dimension measurement should be eligible under the requirement of the "GDL-S1025RGB02-3(WR82063046SC0201)" 's diagram.

3) Testing Rate: the random testing is carried out according to <GB/2828> Testing Standard Grade II. Generally, distinguishing the different quality bases on the standards of Main-flaw AQL0.65 and hypo-flaw AQL1.0

8. Appearance Inspection. (While Operating)

Item	Standard	Note
Oddments	There must not be any obvious oddments in V.A.	
Mechanical Scratches	There must not be any obvious mechanical scratches in V.A.	
Dots	There must not be any obvious dots in V.A.	
Warp & Distortion	There must not be warp or distortion more than 1.0mm.	
Dust Pollution	There must not be any obvious dust pollution.	
Cracking & Damification	There must not be any obvious cracking or damification.	

9. Reliability Testing.

1) Testing Items.

Testing Items	Testing Conditions	Note	Disabled Amount
High Temperature & Low Temperature Testing	$T_a = -20 \sim 70$ 85%RH , 12 Hours , Tested While Operating.	10cycle	0/3

2) Invalidation Criteria.

Item	Symbol	Testing Conditions	Criteria	
			Min	Max
Forward Current	I_f	$I_f = 20\text{mA(R)}/30\text{mA(G/B)}$		Initial $\times 1.15$
Reserve Current	I_r	$V_r = 5\text{V}$		Initial $\times 1.15$
Brightness	L_v	$I_f = 20\text{mA(R)}/30\text{mA(G/B)}$	Initial $\times 0.5$	

Model No.	WR82063046SC0201	File No.	YW0711027	Ver.	02	01	Date	2008-01-25
-----------	------------------	----------	-----------	------	----	----	------	------------

10. Product is RoHS compliant

11. Packing .

1). Antistatic bags should be used for inner packing. No damage to the cartons for goods.