

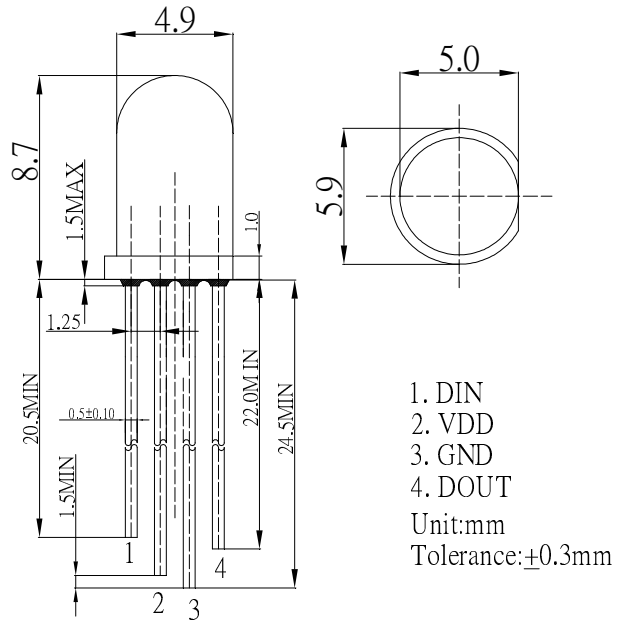
■ Features

- High Luminous LEDs
- 5mm Round Standard Directivity
- IC Use CMOS technology
- Adjust grayscale circuit (can adjust 256 grayscale level)
- Series interface, cascade interface
- Built-in power on reset circuit
- Completely receive and decode data through a single wire.
- Directly connect to electronic power without transformer
- White diffused Type

■ Applications

- Toys
- Christmas lamp

■ Outline Dimension

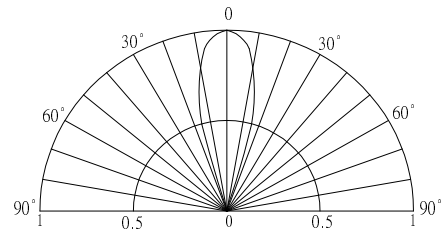


■ Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
Power Supply	VDD	6	V
Operating Temperature	Topr	-30 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Lead Soldering Temperature	Tsol	260°C/5sec	-

■ Directivity



■ Electrical -Optical Characteristics (Ta=25°C VSS=0V)

Item	Symbol	Min.	Typ.	Max.	Unit
Supply voltage	VDD	3.5	-	6.0	V
Withstand voltage of output terminal	DOUT	-	-	6.0	V
LED Current	If(R/G/B)	-	15	-	mA
Data input	DIN	-	-	10	V
Dominant Wavelength*	Red	620	625	630	nm
	Green	520	525	530	
	Blue	465	470	475	
Luminous intensity*	Red	350	450	-	mcd
	Green	500	600	-	
	Blue	150	200	-	
50% Power Angle	2θ1/2	-	30	-	deg

Pin Definition

Symbol	Pin Name	Description
DIN	Data input	Control data input
DO	Data output	Control data output
VDD	Logic power	Internal power of chip
GND	Logic ground	Internal ground of chip

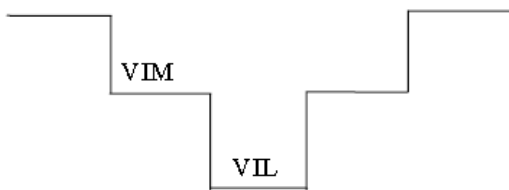
*1 Tolerance of measurements of dominant wavelength is ±1nm

*2 Tolerance of measurements of luminous intensity is ±15%

*3 Tolerance of measurements of forward voltage is ±0.1V

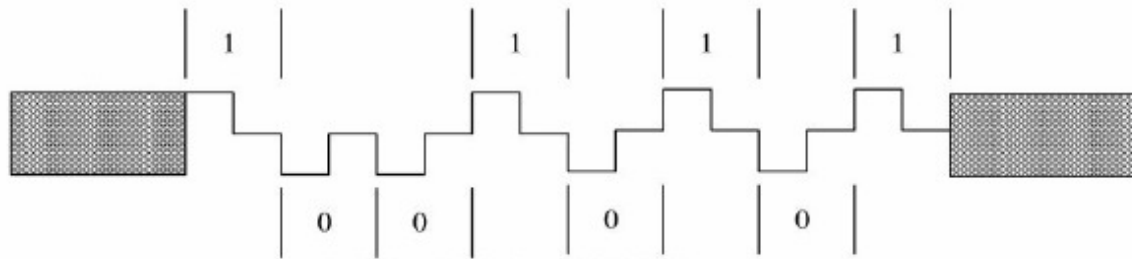
Item	Symbol	Min.	Typ.	Max.	Unit
Supply voltage	VDD	3.5	-	6.0	V
High Level and middle level differential pressure	V11	-	0.5*VDD	-	V
Middle level and low level differential pressure	V12	-	0.5*VDD	-	V

■ **DIN input, PIN wave as bellow.**



■ **Data information format**

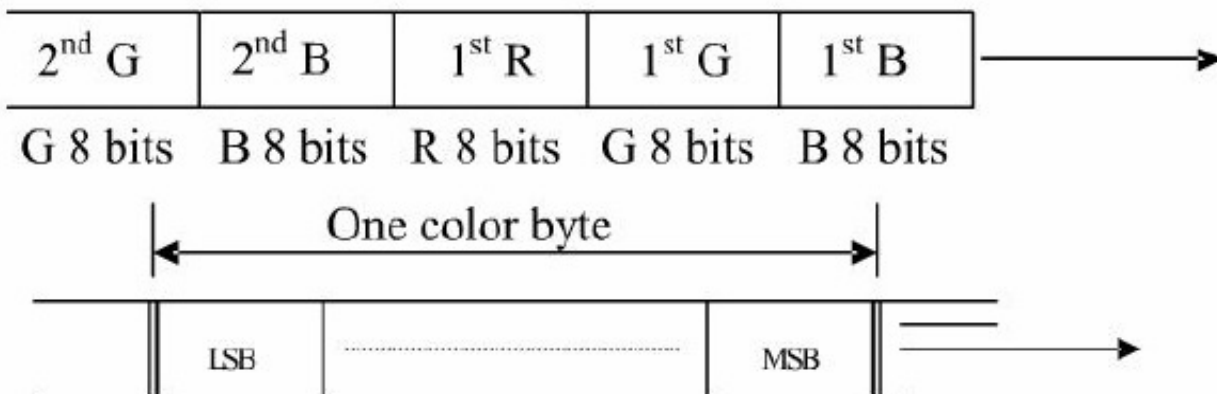
1. Data format



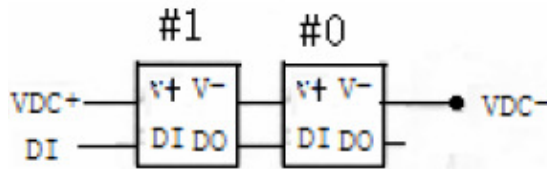
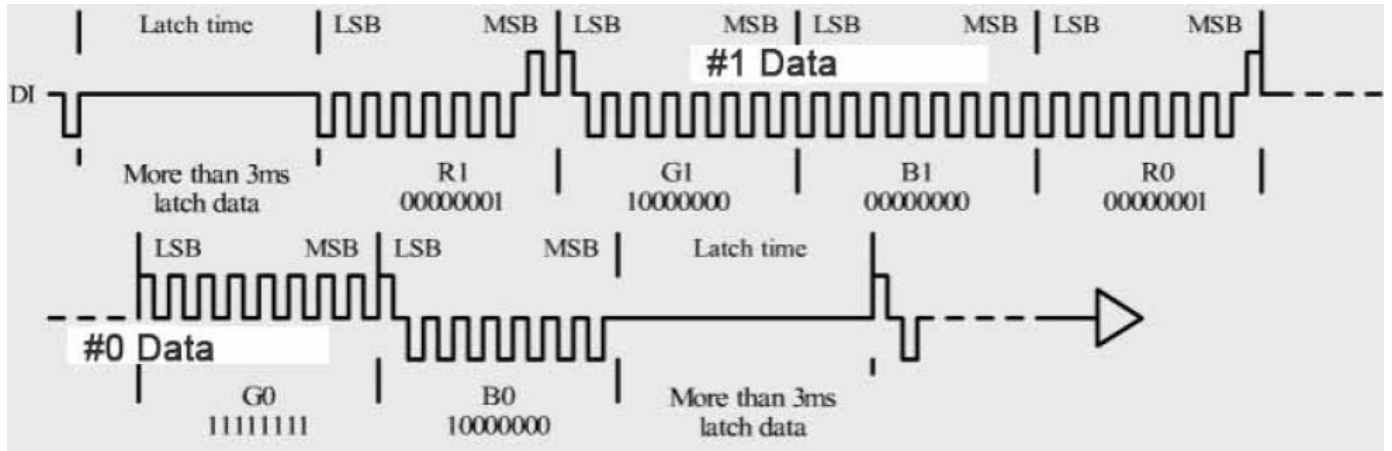
Transmit data is "100101101"

*The pulse width of data 0 or 1 must be between 1 to 100 microseconds (μ s)

2. The minimum data unit definition



3. For example: 2 IC cascade



Application circuit

1. Connect to 220V electronic supply, suggest to use 48PCS LED in series
2. Connect to 110V electronic supply, suggest to use 24PCS LED in series

