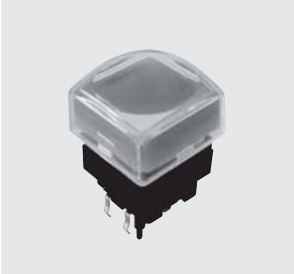
15GL

Illuminated Pushbutton Switches

FUJISOKU SWITCHES

RoHS Compliant



Specification

Rating	Non-switching : 1mA, DC20V Max.or 5mA.DC5V Max. Break current : Same as Non-switching Min. rating : 1mA, DC5V
Contact Resistance	200Ω Max.
Dielectric Strength	100MΩ Min. (DC100V)
Insulation Resistance	AC250Vrms 1minute
Operating Force	1.18~1.96N
Stroke	1.6±0.3mm
Operating Temperature Range	−10℃~+60℃
Storage Temperature Range	−25℃~+70℃
Electrical Life	500,000 operations
Material/Finish	Clear cover,Key top:Polycarbonate Housing,Case:GF-PBT Contact terminals:Phosphor bronze/Gold over Nickel plating LED terminal:Phosphor bronze/Gold over Nickel plating

Part Numbering

15GL — 18 0 — 0 010 — E

Series Code

Key Top Style	
Code	Style
14	14㎜ sq.
18	18㎜ sq.

Transparent Cover	
Code	
0	With cover
1	Without cover

Key top / LED Color					
Code	Color		Code	Color	
	Key Top	LED		Key Top	LED
000	White	Yellow	080	White	Green
010	Red	Red	160	White	Red
030	Green	Green	001	White	Red·Green

Pb Free

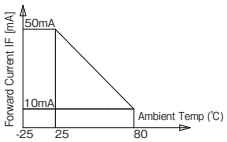
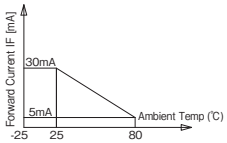
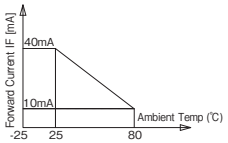
Type and LED Specification

Part No.	Key Top	LED	LED Characteristics					
			Max. Rating (25℃)		Forward Voltage (V_F)		Recommended Forward Current	Across Terminals
			Reverse Voltage(V_R)	Forward Current (I_F)	Standard	Max		
15GL-※※※-0000-X	White	Yellow	10V	50mA	4.2V	5.2V	40mA	5—6
15GL-※※※-0010-X	Red	Red			4.0V			
15GL-※※※-0030-X	Green	Green			4.4V			
15GL-※※※-0080-X	White	Green			4.4V			
15GL-※※※-0160-X	White	Red		30mA	3.6V		20mA	6—8
15GL-※※※-0001-X	White	Green		40mA	4.4V		40mA	5—7

(Note 1) ※※※ designate Key Top Style and With/Without Transparent Cover.
"14" = 14mm sq.
"18" = 18mm sq.
"0" = With cover
"1" = Without cover

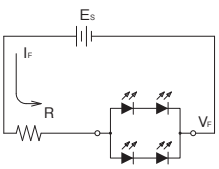
LED Characteristics

Ambient Temperature and Allowable Forward Current

Single Color LED	Dual Color LED: Red	Dual Color LED: Green
		
LED Reduction Rate 0.73mA/K	LED Reduction Rate 0.45mA/K	LED Reduction Rate 0.55mA/K

Precautions

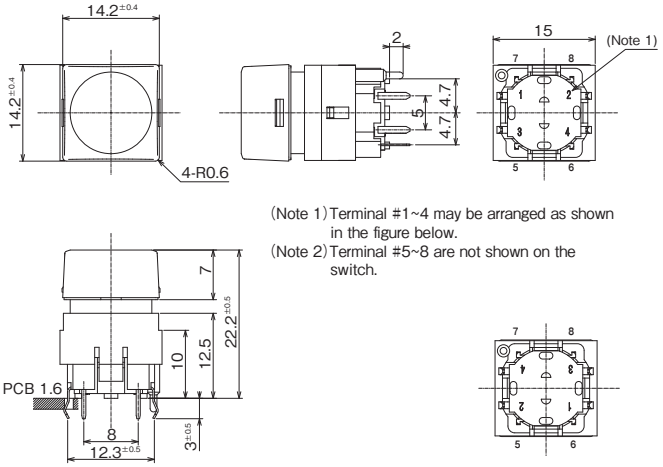
(a)To prevent overcurrent of LED, connect a protective resistance (R) in series.
(b)For the values of VF, etc., refer to the table shown above.
(c)R: Protective resistance ES: Supply voltage
VF: Forward voltage of LED IF: Forward current of LED



$$R = \frac{E_S - V_F}{I_F}$$

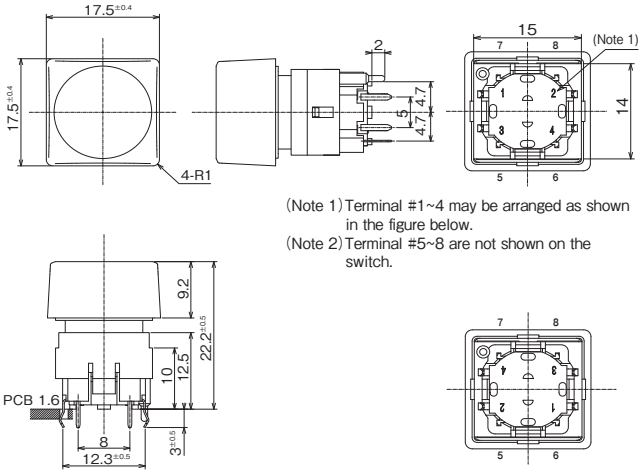
15GL

15GL-14＊ □14 ㎜ Sq. Type



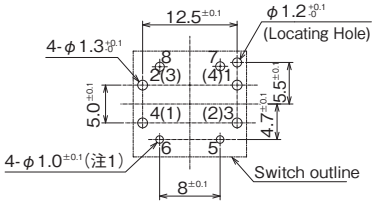
(Note 1) Terminal #1~4 may be arranged as shown in the figure below.
(Note 2) Terminal #5~8 are not shown on the switch.

15GL-18＊ □18 ㎜ Sq. Type



(Note 1) Terminal #1~4 may be arranged as shown in the figure below.
(Note 2) Terminal #5~8 are not shown on the switch.

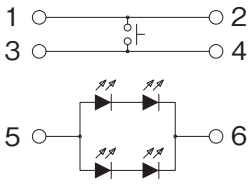
■PC Hole Layouts



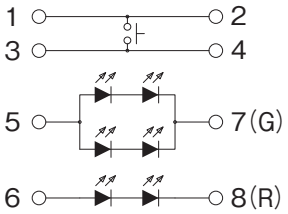
(Note 1) Holes for terminal #7 and 8 are not required for single color LED.

■Circuit

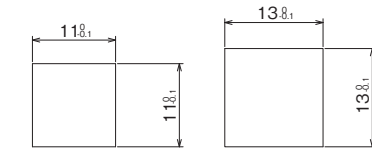
Single Color LED



Dual Color LED



Legend sheet should be cut as shown below (t=0.2mm max)



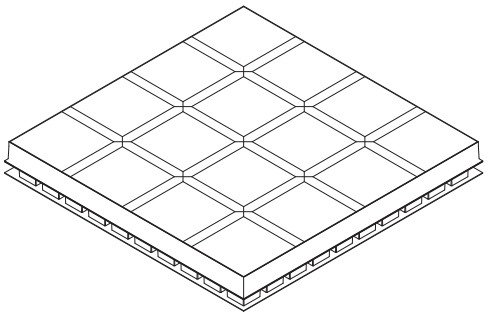
14㎜ Sq. Type　　18㎜ Sq. Type

■ Table of Part Numbers

Part No.	Key Top Style	Key Top Color	LED Color	Transparent Cover	MOQ
15GL-140-0000-E	□14mm sq.	White	Yellow	With cover	100
15GL-140-0010-E		Red	Red		
15GL-140-0030-E		Green	Green		
15GL-140-0080-E		White	Green		
15GL-140-0160-E		White	Red		
15GL-140-0001-E		White	Red/Green		
15GL-141-0000-E		White	Yellow	Without cover	
15GL-141-0010-E		Red	Red		
15GL-141-0030-E		Green	v		
15GL-141-0080-E		White	Green		
15GL-141-0160-E		White	Red		
15GL-141-0001-E		White	Red/Green		
15GL-180-0000-E	□18mm sq.	White	Yellow	With cover	
15GL-180-0010-E		Red	Red		
15GL-180-0030-E		Green	Green		
15GL-180-0080-E		White	Green		
15GL-180-0160-E		White	Red		
15GL-180-0001-E		White	Red/Green		
15GL-181-0000-E		White	Yellow	Without cover	
15GL-181-0010-E		Red	Red		
15GL-181-0030-E		Green	Green		
15GL-181-0080-E		White	Green		
15GL-181-0160-E		White	Green		
15GL-181-0001-E		White	Red/Green		

■ Packaging Specifications

30pcs/tray



■ Soldering

(1) Manual soldering
Device：Solder iron
350℃ Max. 3sec. Max.

(2) Auto soldering
Device：Jet wave or dip type
260℃ Max. 10sec. Max.：Twice