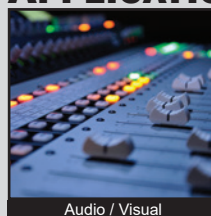


ULP SERIES PUSHBUTTON SWITCH

ANTI-VANDAL SWITCHES
DETECTOR SWITCHES
DIP SWITCHES
KEYLOCK SWITCHES
NAVIGATION SWITCHES
PUSHBUTTON SWITCHES
ROCKER SWITCHES
ROTARY SWITCHES
SLIDE SWITCHES
SNAP ACTION SWITCHES
TACTILE SWITCHES
TOGGLE SWITCHES
CAP OPTIONS



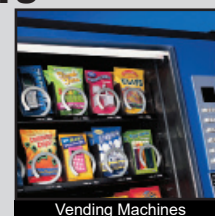
APPLICATIONS / MARKETS



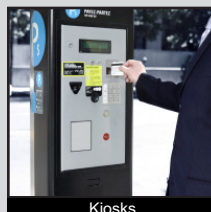
Audio / Visual



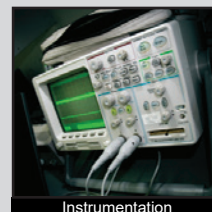
Consumer Electronics



Vending Machines



Kiosks



Instrumentation



Medical Equipment

RoHS

SPECIFICATIONS

Electrical Rating: Silver: .5A @ 25VDC
Gold: 0.1A Max @ 28VDC
Electrical Life: 200,000 Cycles
Contact Resistance: Silver: 50mΩ Max. initial
Gold: 100mΩ Max. initial
Insulation Resistance: 100 MΩ Min. @ 500VDC
Dielectric Strength: 1,000VAC
Operating/Storage Temperature: -40°C to 85°C
Travel: 2.20mm
Contact Arrangement: SPDT, DPDT
Actuation Force: SPDT: 200gf; DPDT: 300 gf
Panel Thickness: 0.75-3.0mm (panel mount version only)

FEATURES & BENEFITS

- Single pole or double pole functions
- Multiple color options including RGB color
- Multiple cap color and style options
- PC pin or solder lug termination
- Latching or momentary options
- Gold or silver contact material

PART NUMBER CONFIGURATOR

Series	Circuit Options	Mechanical Configuration Options	Termination Options	Contact Material Options	Cap Style Options	Cap Color Options	LED #1 Options	LED #2 Options
 ULP	 12 - SPDT 22 - DPDT	 EE - Latching OA - Momentary	 P1 - PC Pins M1 - Solder Lug	 Q - Silver R - Gold	 SS - Square Sculptured SF - Square Flat RF - Rectangular Flat PM - Panel Mount LS - Large Sculptured	 CL1 - Clear Lens / White Diffuser OP1 - Black Opaque	 NIL - No LED BLU - Blue GRN - Green RED - Red YEL - Yellow RGB - Red-Blue-Green	 NIL - No LED BLU - Blue GRN - Green RED - Red YEL - Yellow

NOTES:

- 1) M1 Termination is only available with Panel Mount Cap Style
- 2) P1 Termination is not available with Panel Mount cap Style
- 3) OP1 Cap Color (black opaque) is not available with LEDs
- 4) When ordering RGB LED option, no designation is required for LED#2

Specifications subject to change without notice



E-SWITCH®

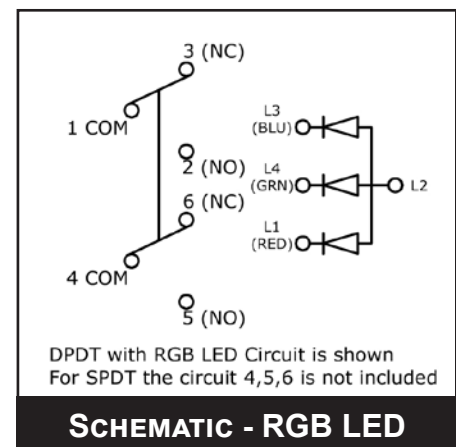
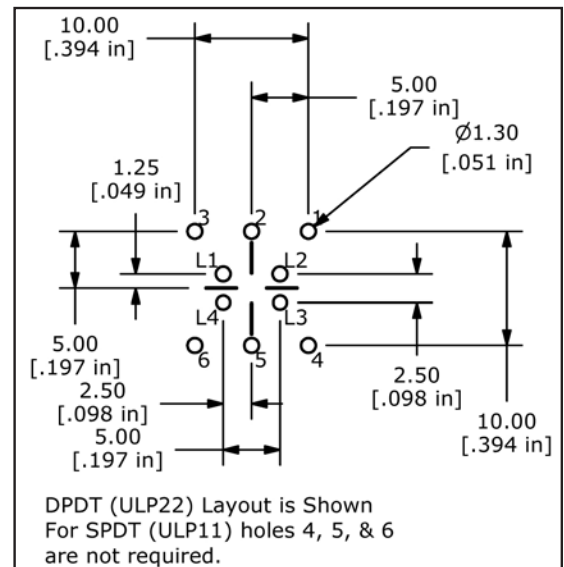
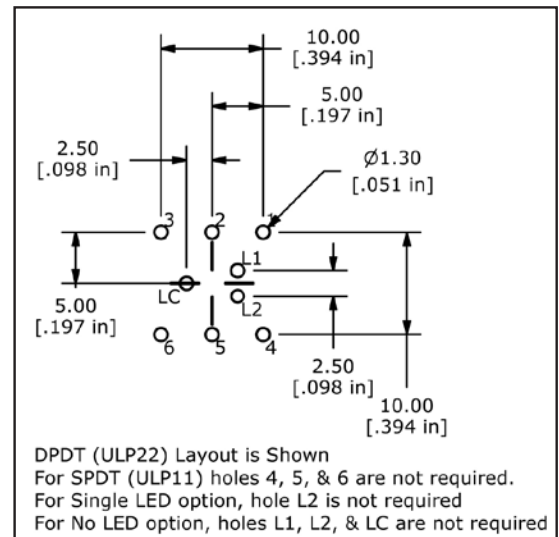
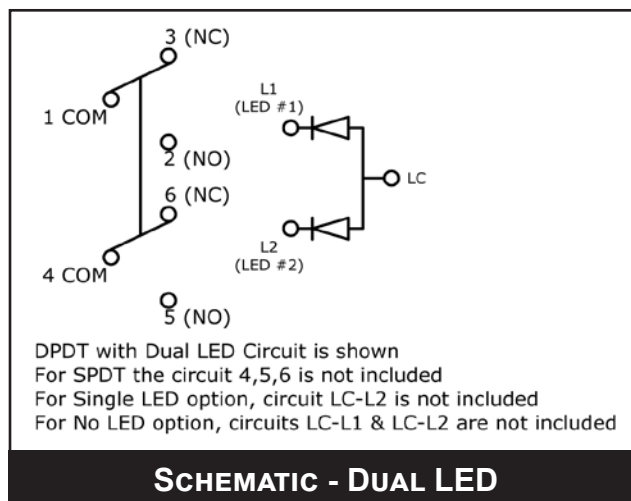
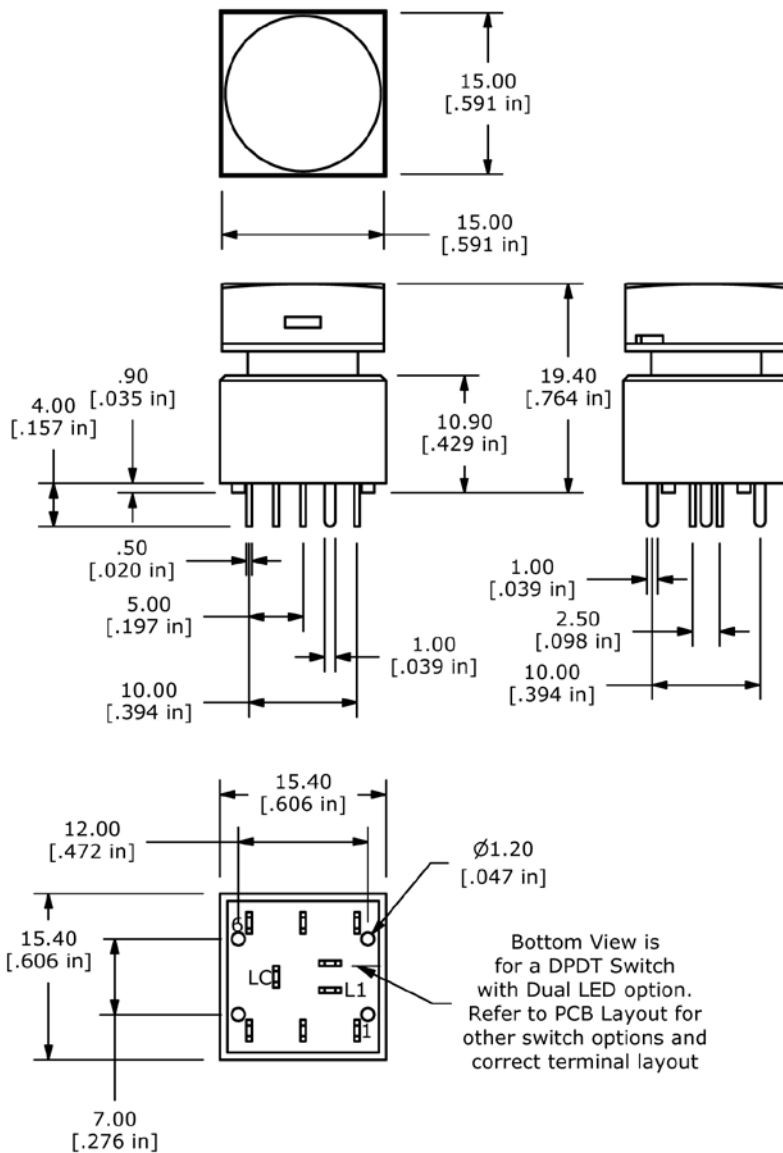
www.e-switch.com

800.867.2717

2

ULP SERIES PUSHBUTTON SWITCH

ACTUATOR OPTIONS - SQUARE SCULPTURED

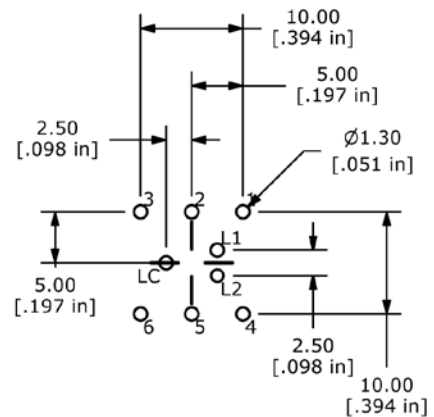


TOGGLE SWITCHES
CAP
ACTION SWITCHES
SLIDE SWITCHES
ROTARY SWITCHES
ROCKER SWITCHES
PUSHBUTTON SWITCHES
NAVIGATION SWITCHES
KEYLOCK SWITCHES
DIP SWITCHES
DETECTOR SWITCHES
ANTI-VANDAL SWITCHES

The drawing consists of three views of the DPDT Switch with Dual LED option:

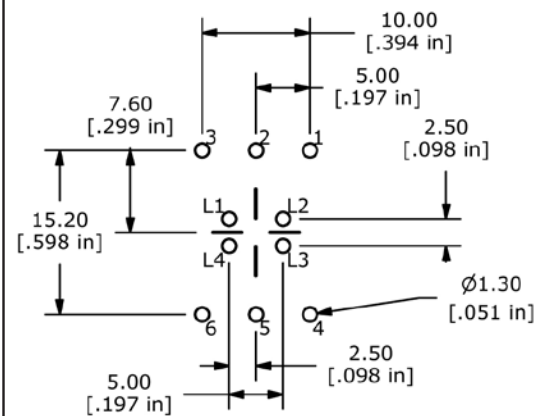
- Top View:** Shows a square footprint with a width of 12.00 [.472 in] and a height of 12.00 [.472 in].
- Side View:** Shows the profile of the switch. The total height is 13.60 [.535 in]. The mounting tab height is 4.00 [.157 in]. The base height is 10.90 [.429 in]. The mounting tab width is .90 [.035 in]. The base width is .50 [.020 in]. The base height is 5.00 [.197 in]. The base width is 10.00 [.394 in]. The base height is 1.00 [.039 in]. The base width is 2.50 [.098 in]. The base height is 10.00 [.394 in].
- Bottom View:** Shows the internal components and terminal layout. The width is 15.40 [.606 in] and the height is 15.40 [.606 in]. The terminal pitch is 7.00 [.276 in]. The terminal diameter is $\phi 1.20$ [.047 in]. The components are labeled LC, L1, and 1.

Bottom View is for a DPDT Switch with Dual LED option. Refer to PCB Layout for other switch options and correct terminal layout



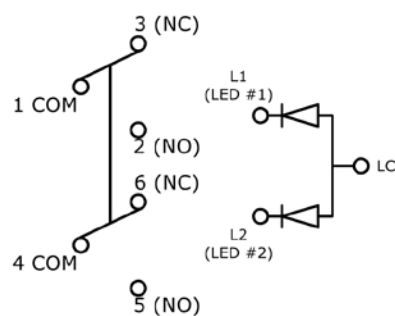
DPDT (ULP22) Layout is Shown
For SPDT (ULP11) holes 4, 5, & 6 are not required.
For Single LED option, hole L2 is not required
For No LED option, holes L1, L2, & LC are not required

PCB LAYOUT - DUAL LED



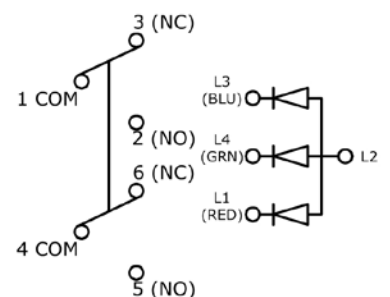
DPDT (ULP22) Layout is Shown
For SPDT (ULP11) holes 4, 5, & 6
are not required.

PCB LAYOUT - RGB LED



DPDT with Dual LED Circuit is shown
For SPDT the circuit 4,5,6 is not included
For Single LED option, circuit LC-L2 is not included
For No LED option, circuits LC-L1 & LC-L2 are not included

SCHEMATIC - DUAL LED



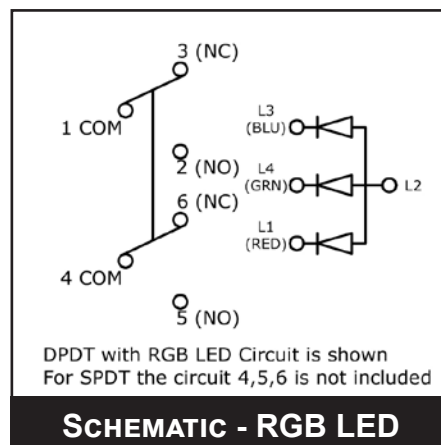
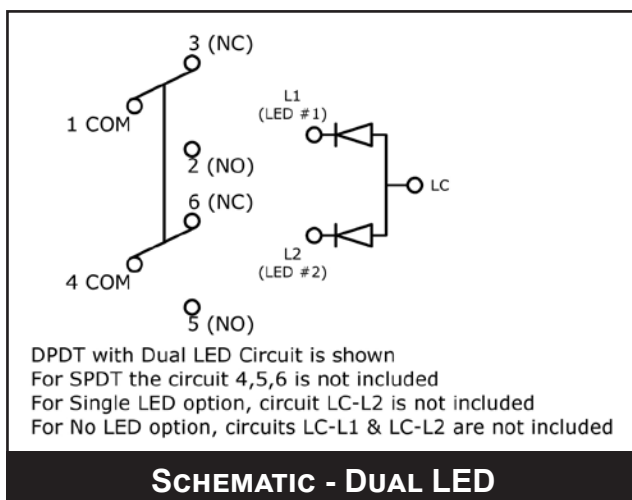
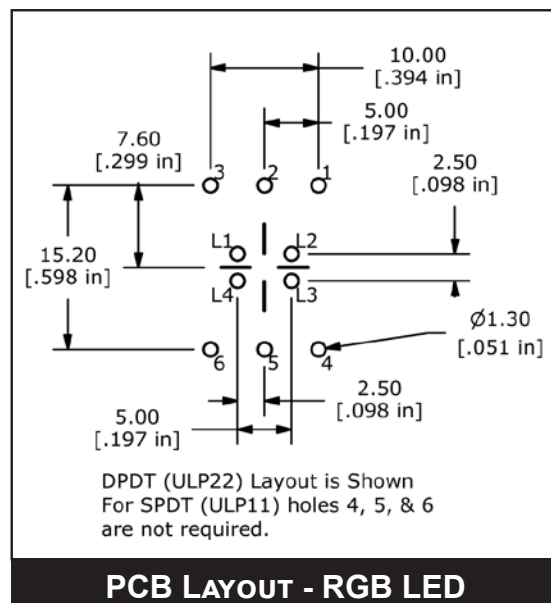
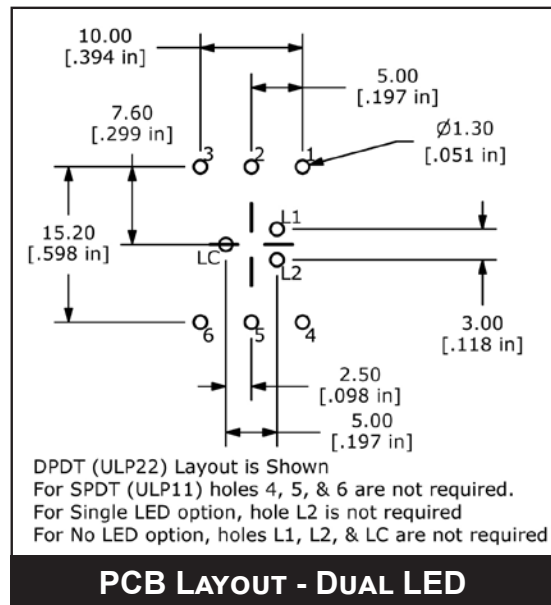
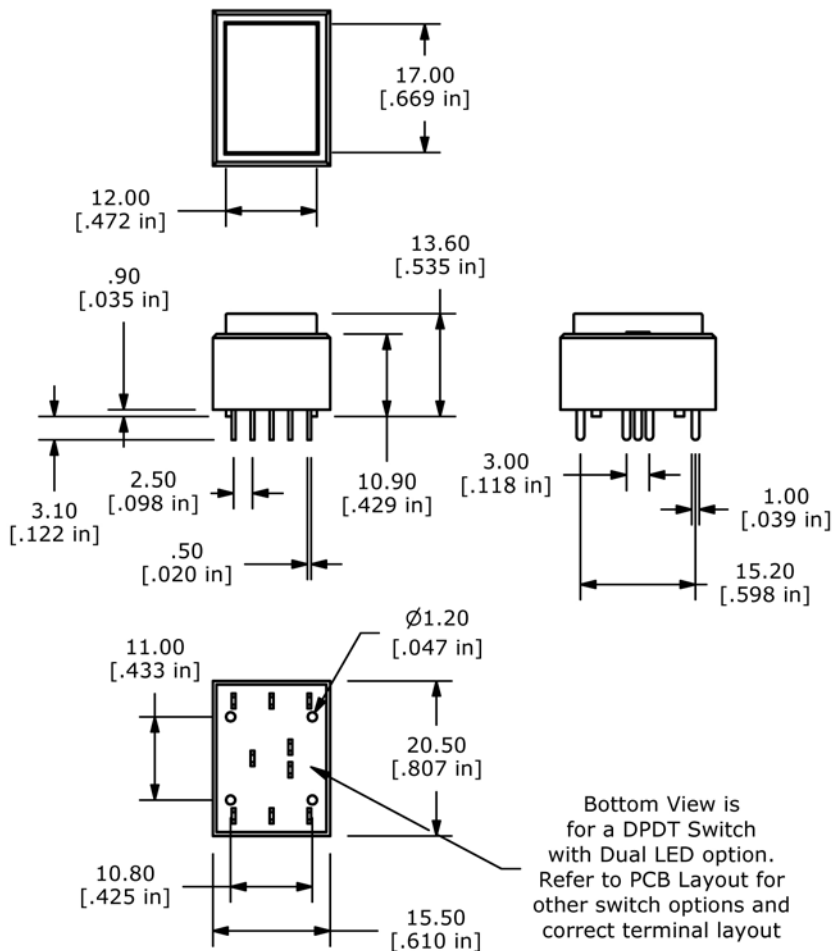
DPDT with RGB LED Circuit is shown
For SPDT the circuit 4,5,6 is not included

SCHEMATIC - RGB LED



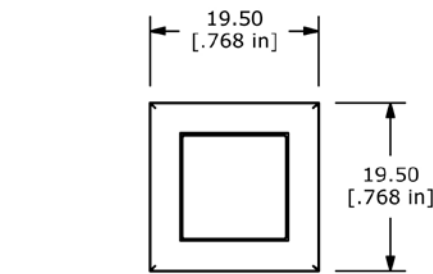
ULP SERIES PUSHBUTTON SWITCH

ACTUATOR OPTIONS - RECTANGULAR FLAT

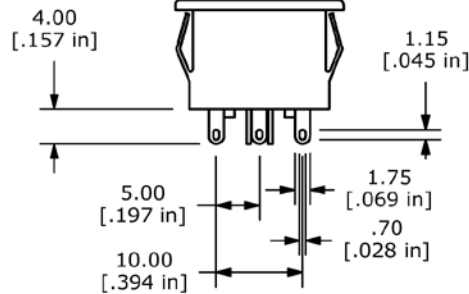
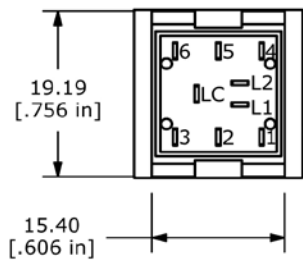
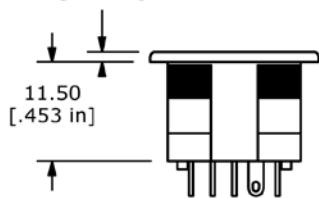


ULP SERIES PUSHBUTTON SWITCH

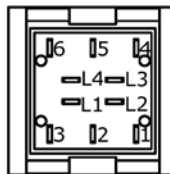
ACTUATOR OPTIONS - PANEL MOUNT



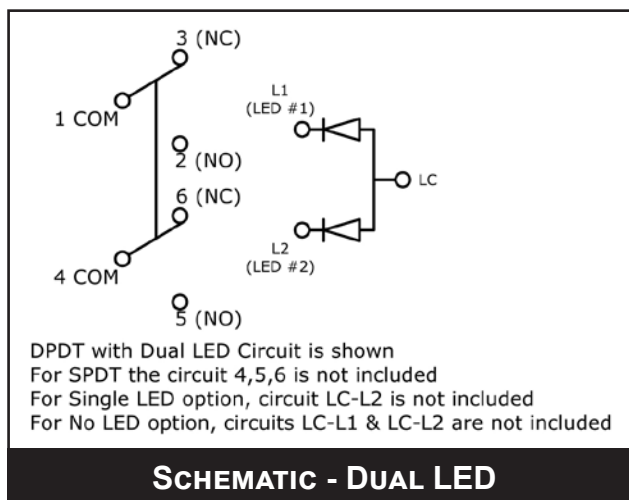
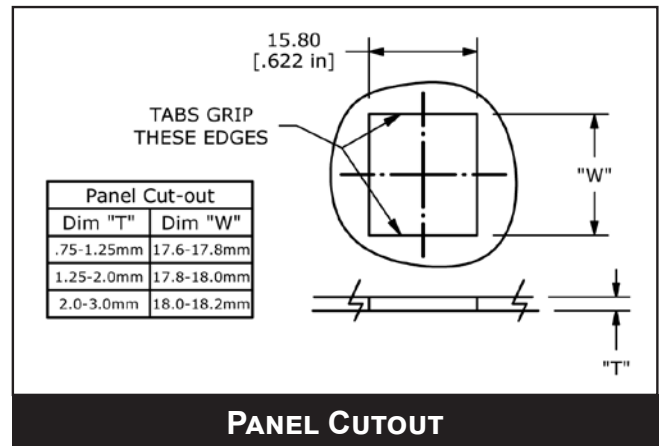
1.20
[.047 in]



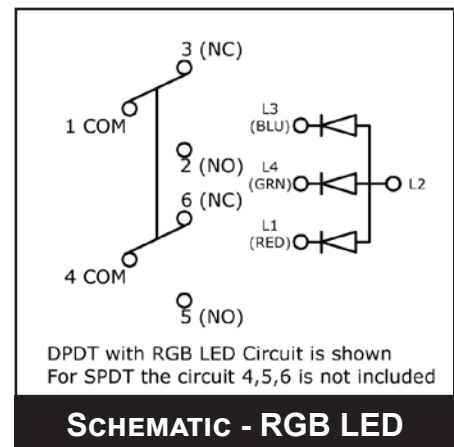
Bottom View of a DPDT Switch
with Dual LED option.
Refer to Schematic for
one LED, zero LED, and SPST options
and correct terminal layout.



Bottom View of a DPDT Switch
with RGB LED option.
Refer to Schematic for SPST option
and correct terminal layout.



SCHEMATIC - DUAL LED

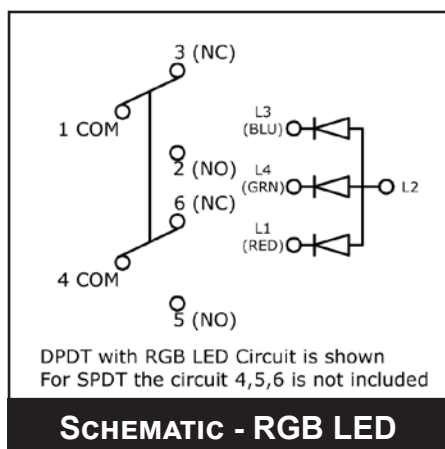
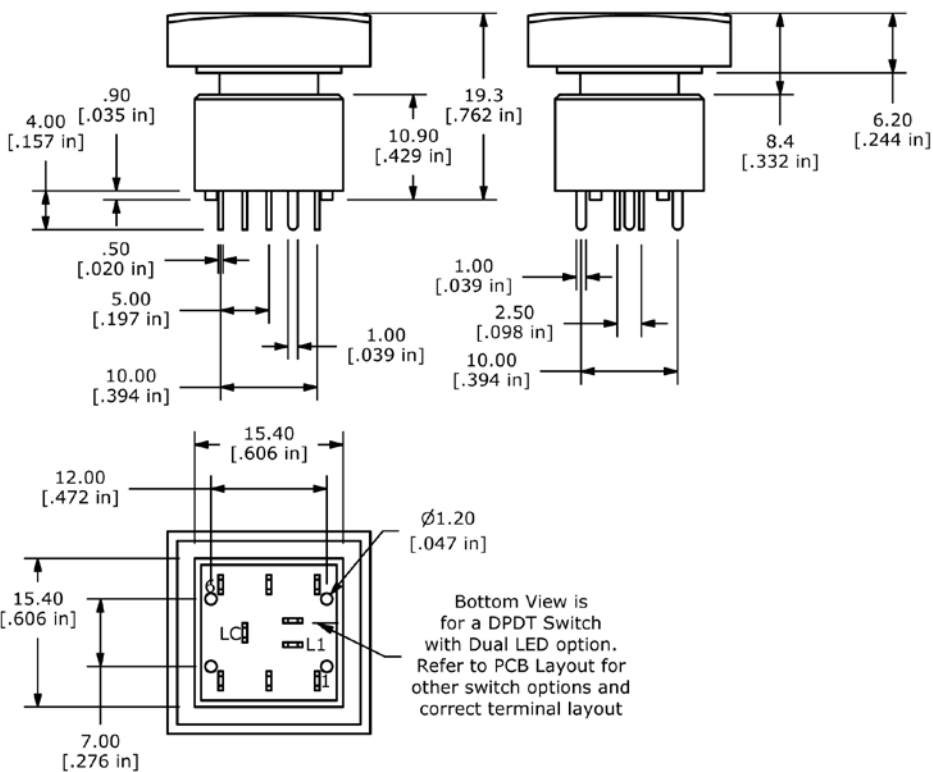
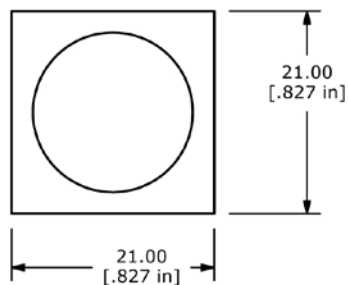


SCHEMATIC - RGB LED

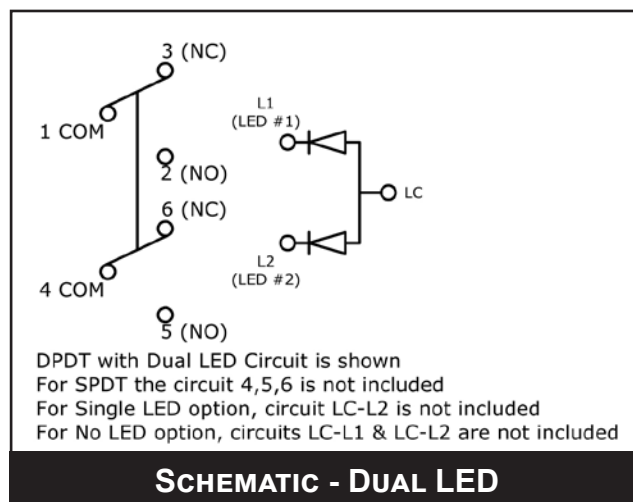


ULP SERIES PUSHBUTTON SWITCH

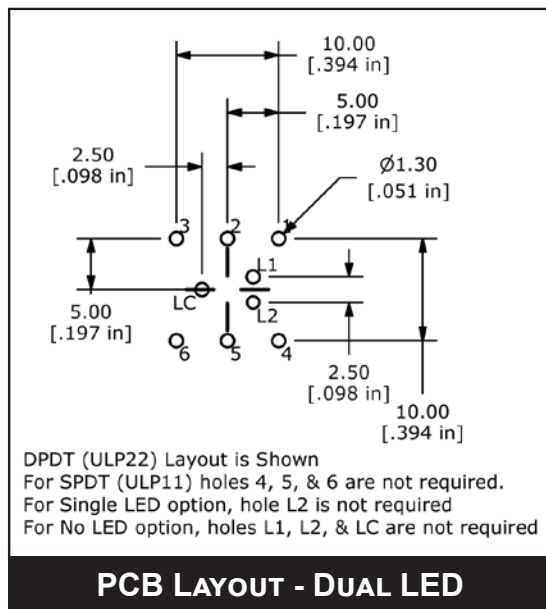
ACTUATOR OPTIONS - LARGE SCULPTURED



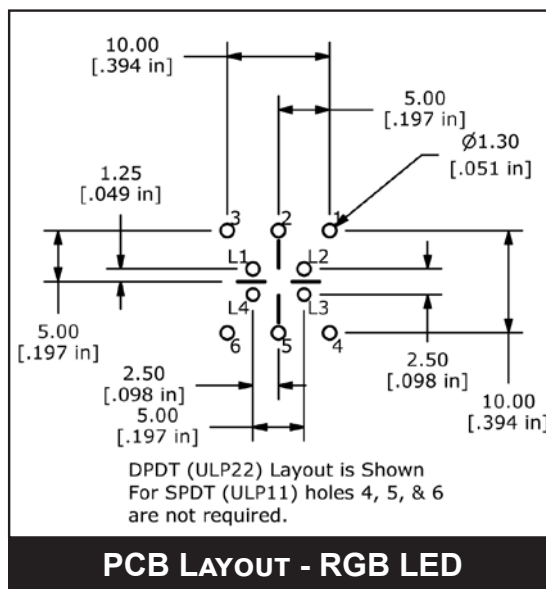
SCHEMATIC - RGB LED



SCHEMATIC - DUAL LED



PCB LAYOUT - DUAL LED



PCB LAYOUT - RGB LED



Mouser Electronics

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[ULP12OAP1RSS1RGB](#) [ULP12OAP1RSFCL1RGB](#)