



Bi-Color SMT Illuminated Tactile

Specifications

Electrical Ratings	50mA @ 24VDC	Dielectric Strength	1000Vrms min
Electrical Life	500,000 cycles typical	Insulation Resistance	>100MΩ min
Contact Resistance	<50mΩ initial	Operating Temperature	-40°C to 85°C
Actuation Force	160 ± 100gF	Storage Temperature	-40°C to 85°C
Actuation Travel	0.5 ± .2mm		

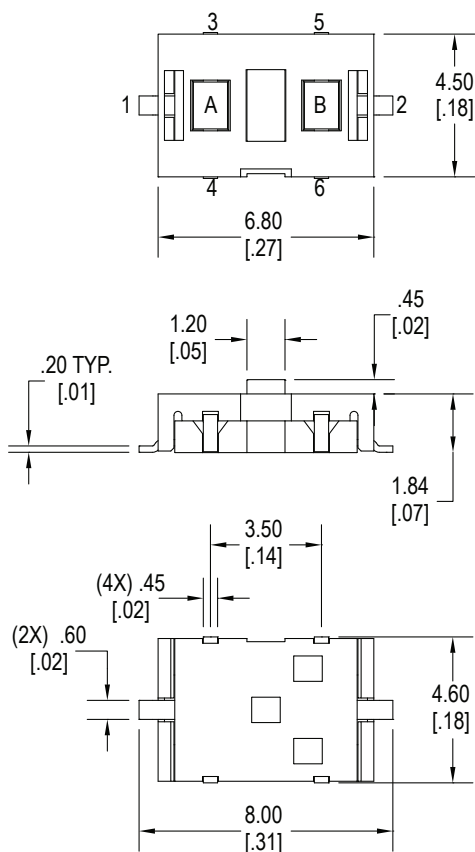
Materials

Actuator	Liquid Crystal Polymer (LCP)
Housing	Nylon 9T
Base	Liquid Crystal Polymer (LCP)
Contacts	Phosphor Bronze, Silver Plated
Terminals	Brass, Silver Plated

Ordering Information

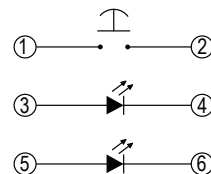
1. Series	NL	R	G			
NL						
2. First LED Color						
R = Red						
G = Green						
W = White						
Y = Yellow						
O = Orange						
B = Blue						
PG = Pure Green						
3. Second LED Color						
R = Red						
G = Green						
W = White						
Y = Yellow						
O = Orange						
B = Blue						
PG = Pure Green						
4. Cap Options						
A = Round						
B = Rectangle						
5. Cap Colors						
0 = Clear Semi-Transparent						
10 = White Opaque, for use with Laser Etching						
20 = Black Opaque, for use with Laser Etching						
MS = Misty Silver, for use with Laser Etching						
5. Laser Etching Styles						
Blank = No laser etching						
A	F					
B	G					
C	H					
D	I					
E	J					

Dimensions

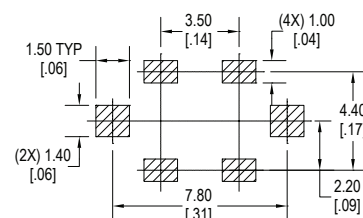


A = 1st LED Color
B = 2nd LED Color

Schematic

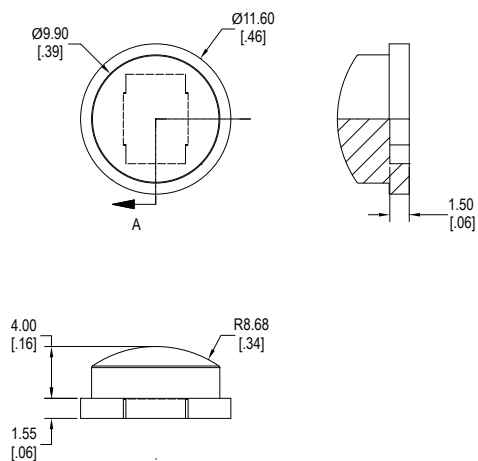


PCB Layout

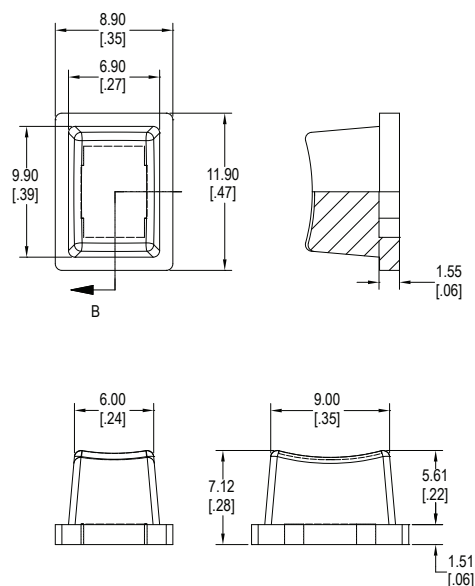


Caps

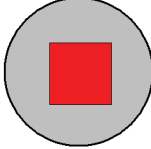
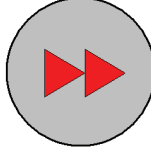
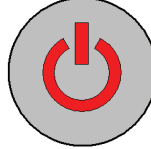
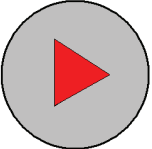
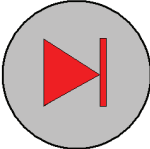
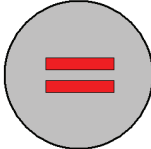
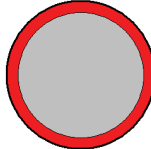
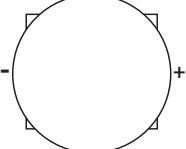
A



B



Laser Etching Styles

A Style 	B Style 	C Style 	D Style 	E Style 
F Style 	G Style 	H Style 	I Style 	J Style 
	All laser etching styles will be orientated with the + terminal located on the right hand side with respect to the legend.			

LED Characteristics

LED Ratings		Color							
		R	G	Y	B	W	O	PG	Units
Reverse Voltage	V_R	5	5	5	5	5	5	5	V
Forward Current (avg / peak)	I_F	30 / 125	30 / 125	30 / 125	30 / 125	30 / 125	30 / 125	30 / 195	mA
Reverse Current $V_R = 5V$	I_R	10	10	10	10	10	10	10	μA
Power Dissipation	P_T	69	81	81	81	120	120	75	mW
Forward Voltage (typ / max) $I_F = 20mA$	V_F	1.8 / 2.3	2.2 / 2.7	2.2 / 2.7	3.5 / 3.8	3.5 / 4.0	3.2 / 4.0	2.1 / 2.5	V
Wavelength at Peak Emission, $I_F = 20mA$	λ_P	660	565	585	470	n/a	525	601	nm
Spectral Line Half-Width, $I_F = 20mA$	$\Delta\lambda$	24	30	35	25	40	35	29	nm
Luminous Intensity, $I_F = 20mA$	LI	4	6	6	110	180	150	320	mcd
Viewing Angle	Θ	150	150	150	150	150	150	150	deg