



Illuminated Through-Hole or SMT Tactile

Specifications

Electrical Ratings	50mA @ 48VDC	Dielectric Strength	250Vrms min
Electrical Life	100,000 cycles typical	Insulation Resistance	>100MΩ min
Contact Resistance	<100mΩ initial	Operating Temperature	-40°C to 85°C
Actuation Force	160 ± 50gF	Storage Temperature	-40°C to 85°C
Actuation Travel	0.7 ± 0.2mm	Sealing Degree	IP67

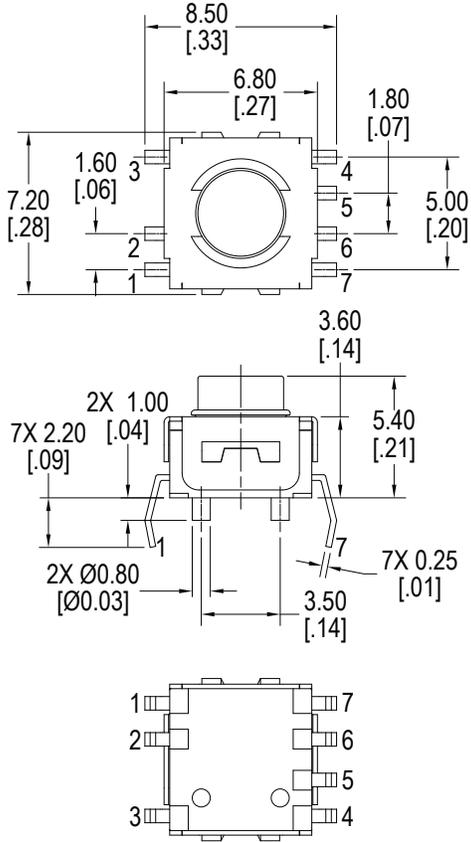
Materials

Actuator	Silicone
Housing	PPA
Cover	Stainless Steel
Dome Contact	Stainless Steel, Silver Plated
Terminals	Brass, Silver Plated

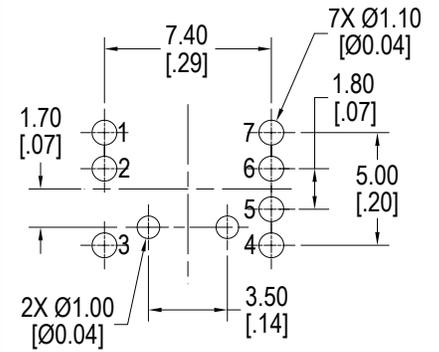
Ordering Information

1. Series	CW	1.8	F160	RB	Q
CW = Through-Hole CWV = Right Angle CWS = SMD, Gull Wing CWJ = SMD, J Lead CWSV = SMD, Right Angle					
2. Actuator Height	1.8 = 1.8mm				
3. Actuator Force	F160 = 160gF				
4. LED Color	R = Red Y = Yellow G = Green B = Blue W = White PG = Pure Green A = Amber RGB (not available with Right Angle terminals) RY = Red / Yellow dual LED RG = Red / Green dual LED RB = Red / Blue dual LED RW = Red / White dual LED RPG = Red / Pure Green dual LED RA = Red / Amber dual LED YG = Yellow / Green dual LED YB = Yellow / Blue dual LED YW = Yellow / White dual LED YPG = Yellow / Pure Green dual LED YA = Yellow / Amber dual LED GB = Green / Blue dual LED GW = Green / White dual LED GA = Green / Amber dual LED BPG = Blue / Pure Green dual LED BA = Blue / Amber dual LED WA = White / Amber dual LED PGA = Pure Green / Amber dual LED				
5. Contact Plating	Q = Silver				

CW Dimensions, Through-Hole

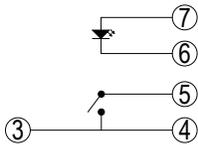


PC Layout, *bottom view*

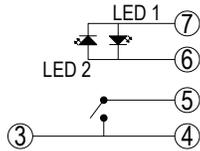


Schematics, *bottom view*

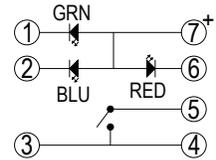
Single LED



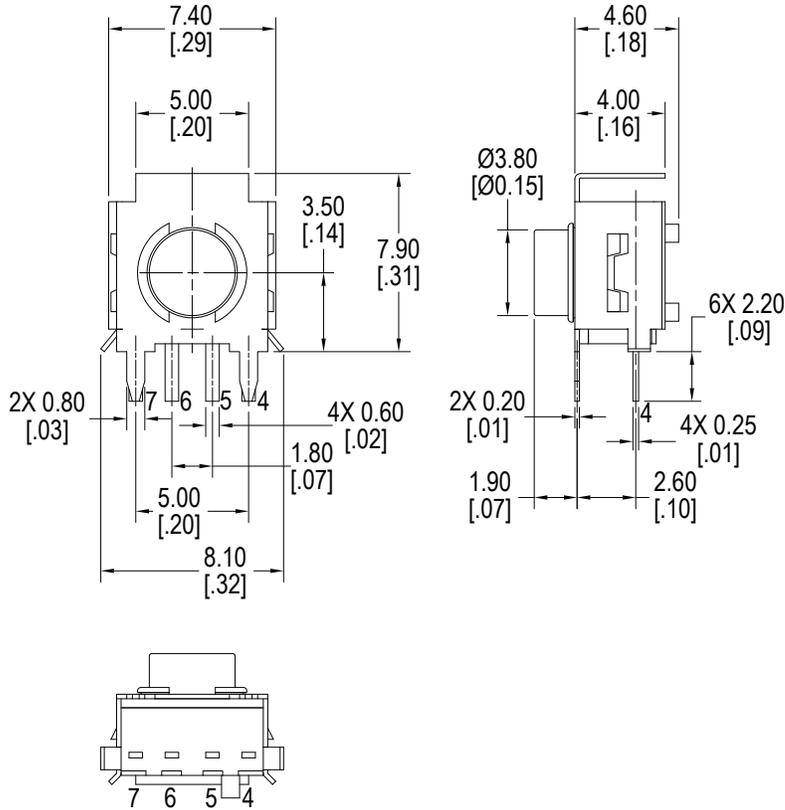
Dual LED



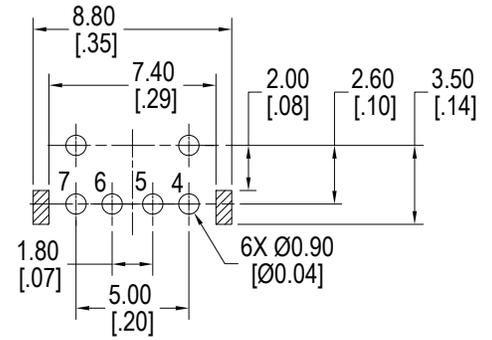
RGB LED



CWV Dimensions, Through-Hole Right Angle

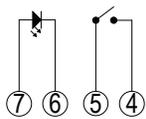


PC Layout, *bottom view*

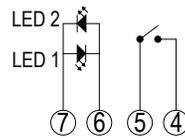


Schematics, *bottom view*

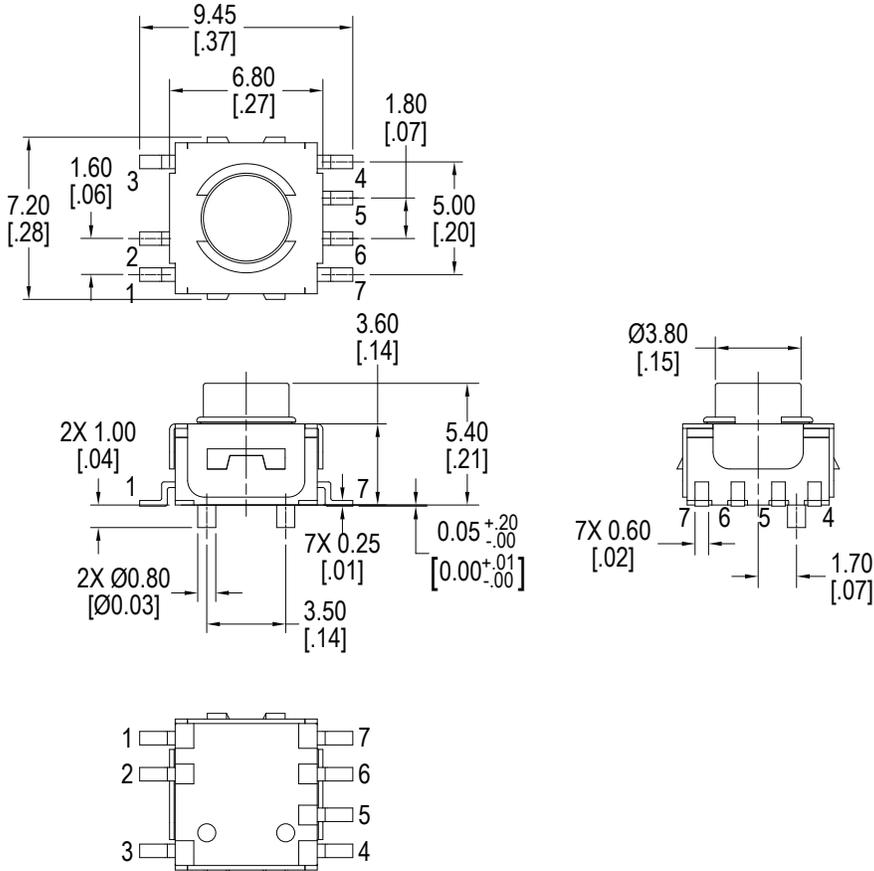
Single LED



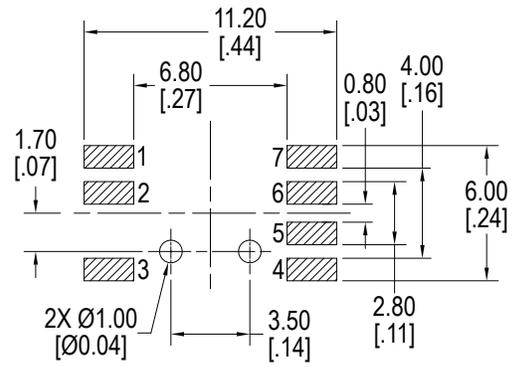
Dual LED



CWS Dimensions, SMD Gull Wing

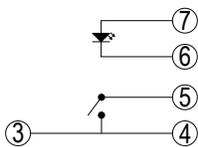


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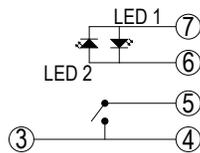


Schematics, *bottom view*

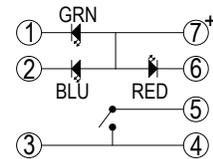
Single LED



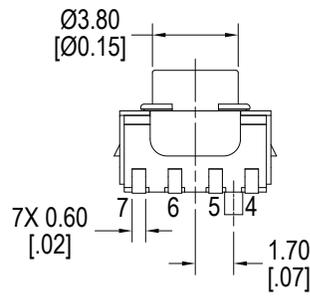
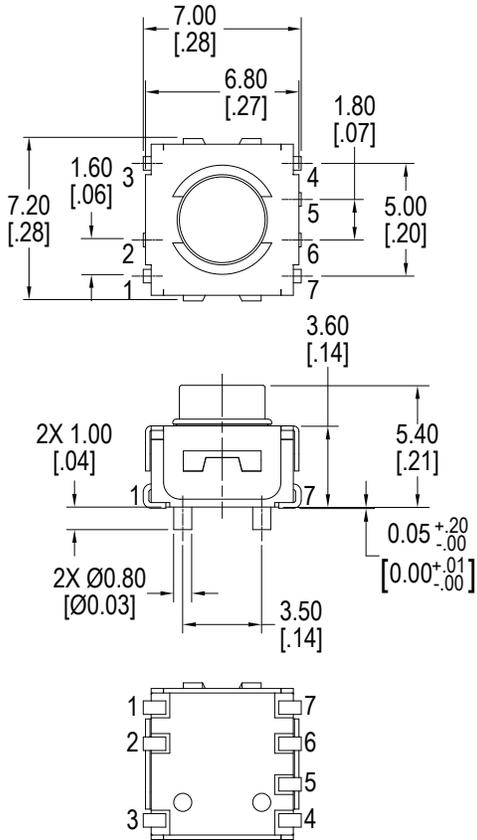
Dual LED



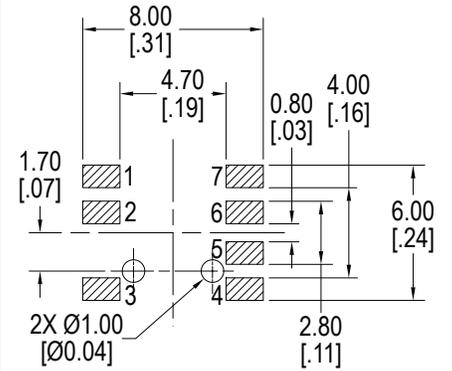
RGB LED



CWJ Dimensions, SMD J Lead

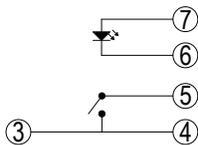


PC Layout, *bottom view*

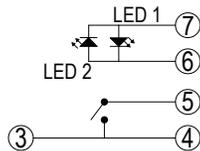


Schematics, *bottom view*

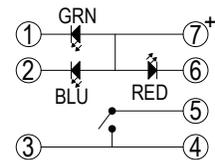
Single LED



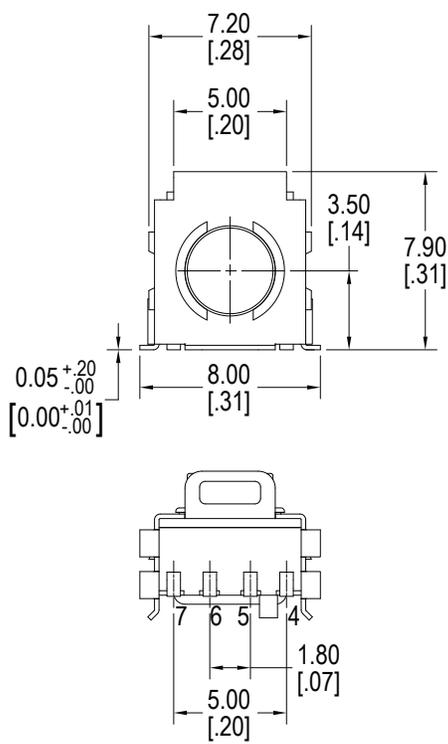
Dual LED



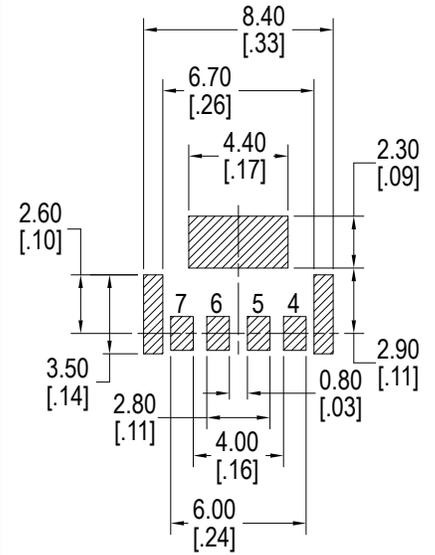
RGB LED



CWSV Dimensions, SMD Right Angle

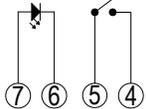


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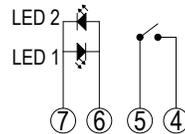


Schematics, *bottom view*

Single LED



Dual LED



LED Characteristics

LED Ratings		RGB			LED Colors							Units
		R	G	B	W	B	A	PG	R	G	Y	
Reverse Voltage	V_R	5	5	5	5	5	5	5	5	5	5	V
Forward Current (avg)	I_F	30	30	30	30	30	30	30	30	30	30	mA
Forward Current (avg)	I_{FS}	125	125	125	125	125	125	125	125	125	125	mA
Reverse Current $V_R = 5V$	I_R	10	10	10	10	10	10	10	10	10	10	μA
Power Dissipation	P_T	75	111	111	111	111	75	111	75	75	75	mW
Operating & Storage Temperature	T_A	-40 ~ +85										$^{\circ}C$
Forward Voltage (typ) $I_F = 20mA$	V_F	2.0	3.2	3.0	3.1	3.1	2.0	3.0	2.0	2.1	2.0	V
Forward Voltage (max) $I_F = 20mA$	V_F	2.5	3.7	3.7	3.7	3.7	2.5	3.7	2.5	2.5	2.5	V
Wavelength at Peak Emmission, $I_F = 20mA$	λ_P	636	523	475	n/a	465	610	525	635	575	595	nm
Spectral Line Half-Width, $I_F = 20mA$	$\Delta\lambda$	19	34	21	n/a	23	19	36	22	18	17	nm
Luminous Intensity, $I_F = 20mA$	LI	200	2500	500	1250	200	400	1600	160	125	630	mcd
Viewing Angle	Θ	120	120	120	120	120	120	120	120	120	120	deg