

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

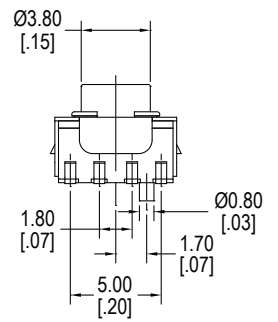
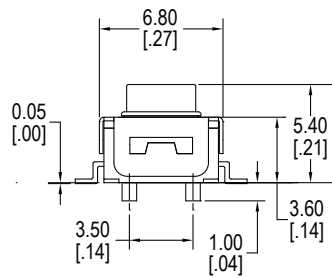
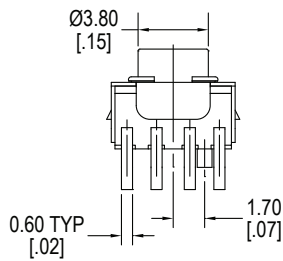
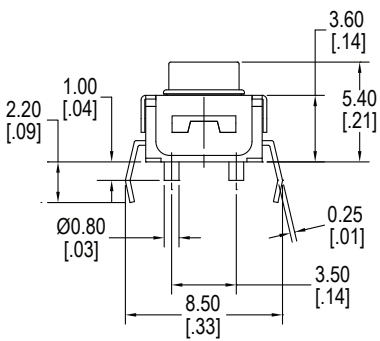
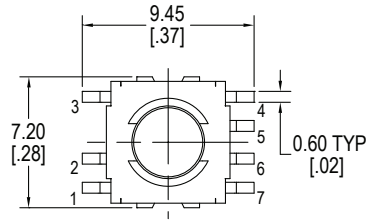
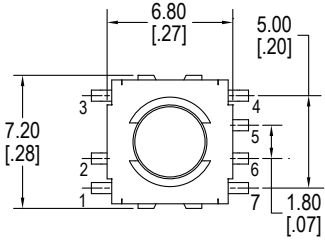
## Materials

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

## Ordering Information

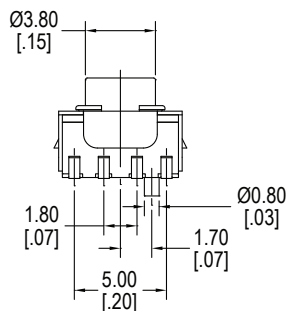
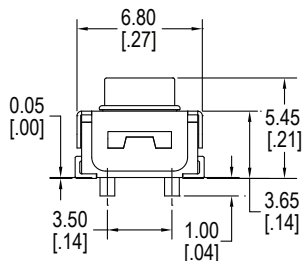
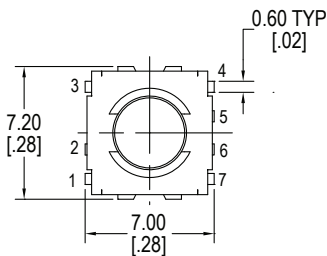
1. Series	CW	1.8	F160	RB	Q																																				
CW CWV = Right Angle CWS = SMD CWJ = SMD, J Lead CWSV = SMD, Right Angle																																									
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3. Actuator Force	F160 = 160gF																																								
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5. Contact Plating	Q = Silver																																								

**Dimensions**

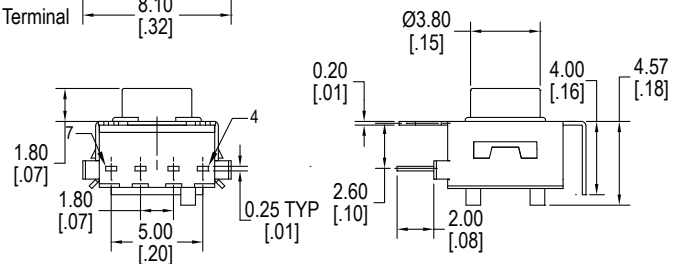
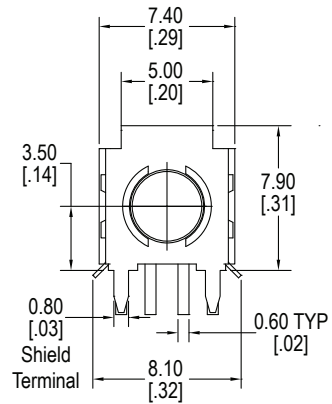


**Through-Hole**

**SMD Gull Wing**

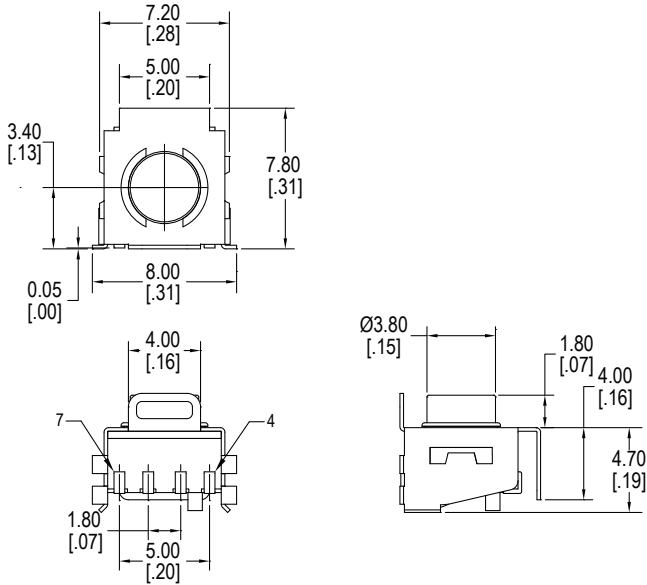


**SMD J Lead**



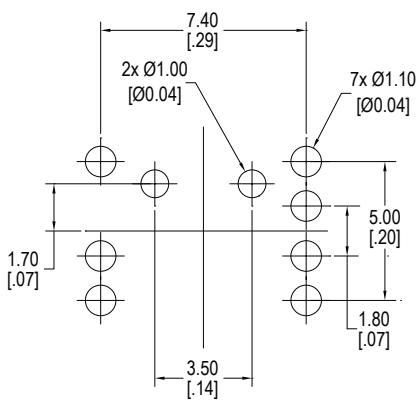
**Through-Hole Right Angle**

## Dimensions

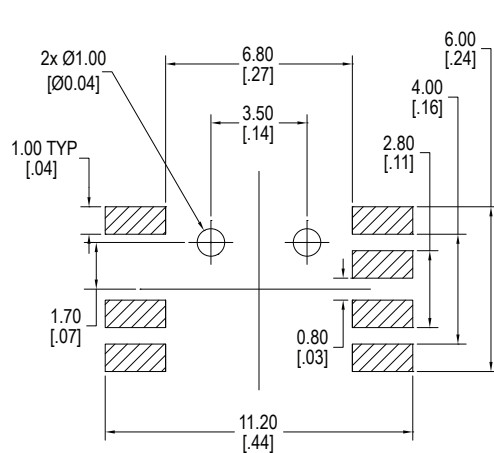


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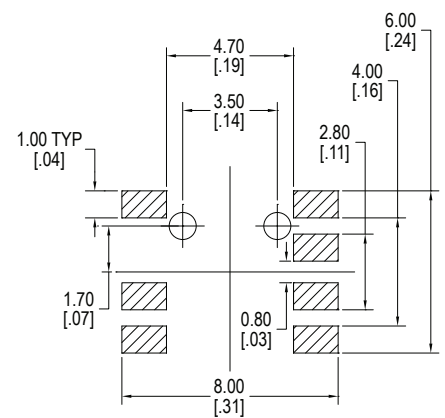
## PC Layouts



**Through-Hole**

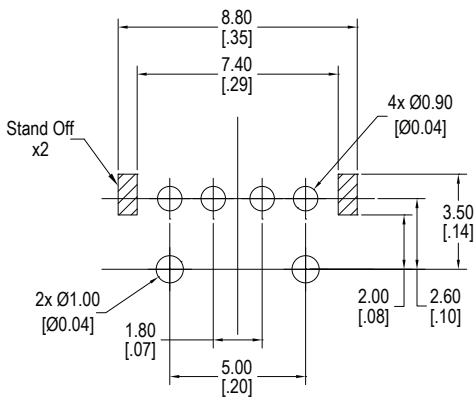


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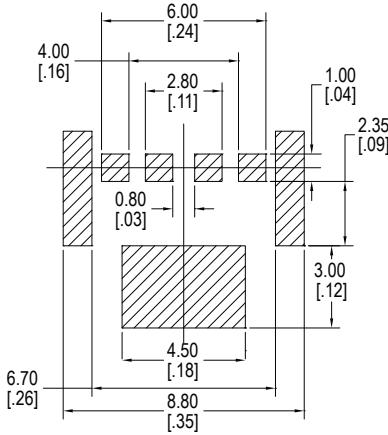


**SMD J Lead**

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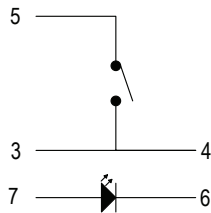


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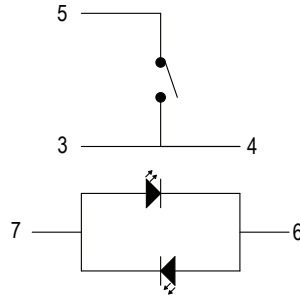


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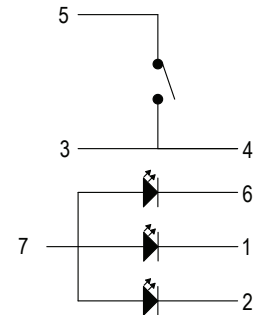
## Schematics



**Single LED**



**Dual LED**



**RGB**

## LED Characteristics

LED Ratings		RGB			LED Colors							
		R	G	B	W	B	A	PG	R	G	Y	Units
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	$\mu A$
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 Emission, $I_F = 20mA$	$\lambda_P$	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	$\Theta$	120	120	120	120	120	120	120	120	120	120	deg