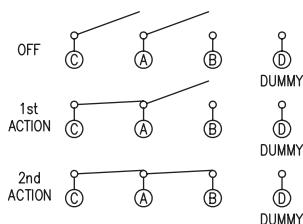
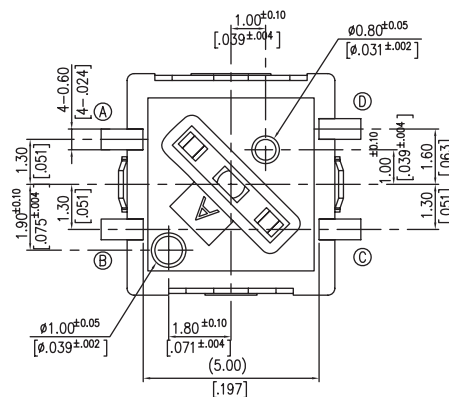
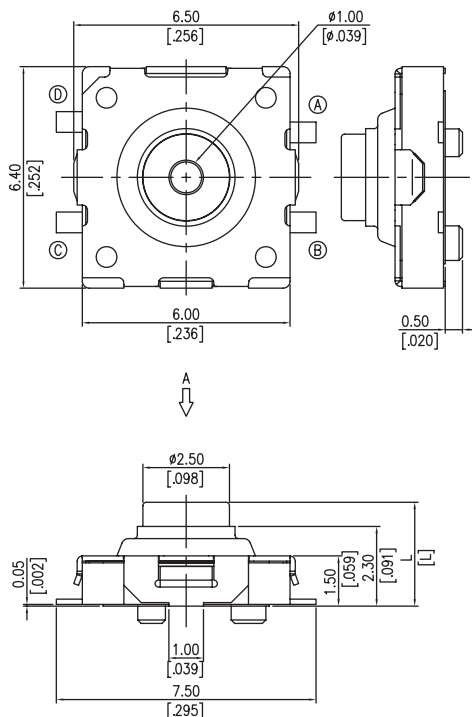
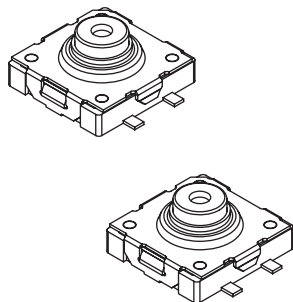


Multi-Direction Switches

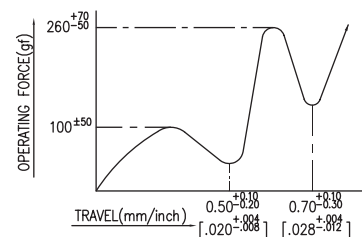
SMT Double Action Switch

MB6 Series

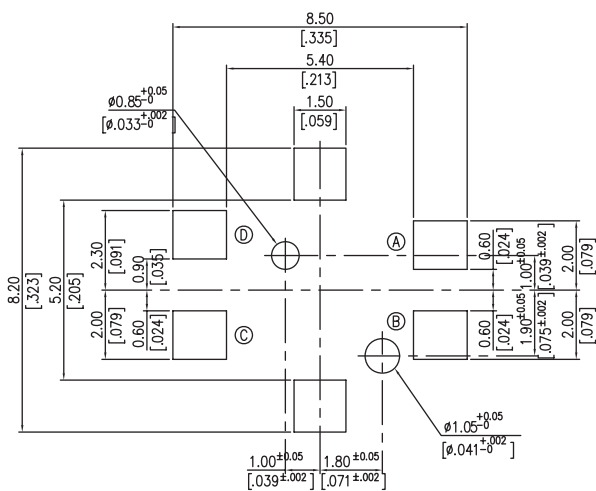
Unit: mm [inch]
General Tolerance: ± 0.2 mm



Circuit



Operating Force - Travel Chart



P.C.B. LAYOUT (View from the Direction A)

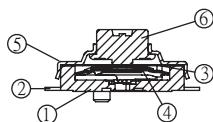
How to order:

MB6

1 HEIGHT "L" (see drawings):

30 L = 3.00 mm [.118 inch]

38 L = 3.80 mm [.150 inch]



Item	Object	Qty	Materials	Treatment
1	Base	1	Nylon UL 94V-0	Black
2	Terminals	1	Copper Alloy	Silver Plating
3	Dustcover	1	PTFE	White
4	Contact Disc	2	Stainless Steel	Silver Cladding
5	Cover	1	Nickel Silver	
6	Stem	1	Nylon UL 94V-0	Black

All products of GREATECS are RoHS compliant.

SPECIFICATIONS

1. Style

This specification describes "DOUBLE ACTION SWITCH", mainly used as signal switch of electric devices, with the general requirements of mechanical and electrical characteristic.

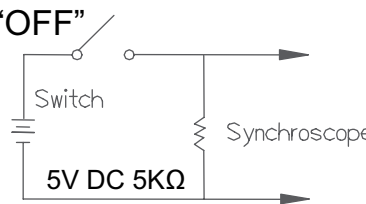
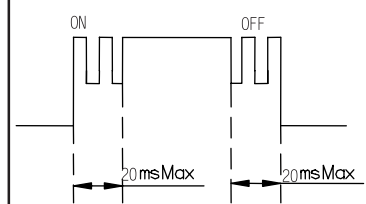
1.1 Operating Temperature Range : -20 °C ~ +70 °C

1.2 Storage Temperature Range : -30 °C ~ +85 °C

2. Current Range: 50mA, 12V DC

3. Type of Actuation: Double Action Tactile Feedback

4. Test Sequence:

	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
APPEARANCE	1	Visual Examination	By visual examination check without any out pressure & testing	There shall be no defects that affect the serviceability of the product.
ELECTRIC PERFORMANCE	2	Contact Resistance	Applying a static load twice the actuating fore to actuator. Measurements shall be made with a 1 kHz small current contact resistance meter.(20mV 50mA max)	100mΩ Max
	3	Insulation Resistance	Measurements shall be made following application of 100 V DC potential across terminals and across terminals and frame.	100MΩ Min
	4	Dielectric Withstanding Voltage	250 V AC(50Hz or 60Hz) shall be applied across terminals and across terminals and frame for 1 minute.	There shall be no breakdown or flashover
	5	Bounce	Lightly striking the actuator at a rate encountered 3 to 4 operations per sec, bounce shall be tested at "ON" and "OFF" 	20 m seconds Max. 

Multi-Direction Switches

SMT Double Action Switch

MB6 Series

MECHANICAL PERFORMANCE	6	Operating Force & Stroke	Refer to part on drawing	-
	7	Stop Strength	Placing the switch such that the direction of switch operation is vertical, a static load of 3 kgf (29.4N) shall be applied in the direction of stem operation for a period of 15 seconds	<ol style="list-style-type: none"> 1 Contact Resistance: 10Ω Max 2 Insulation Resistance: 10MΩ Min 3 Bounce: 20 m seconds max 4 Voltage: AC 250V 1minute Min
	8	Solder Heat Resistance	■ SMT Type~MB6 Series	<ol style="list-style-type: none"> 1 Shall be free from pronounced backlash and falling-off or breakage terminals 2 Contact Resistance: 10Ω Max 3 Insulation Resistance: 10MΩ Min 4 Bounce: 20 m seconds max 5 Voltage: AC 250V 1minute Min
	9	Vibration	<p>Shall be vibrated in accordance with Method 201A of MIL-STD-202F</p> <p>Range of oscillation: 10 to 55 Hz</p> <ol style="list-style-type: none"> 1) Swing distance = 1.5mm 2) Frequency: 10-55-10Hz in 1-min/cycle. 3) Direction of oscillation: Three mutually perpendicular directions, including the directions of stem travel. 4) Test time: 2 hours each direction 	<ol style="list-style-type: none"> 1 Contact Resistance: 10Ω Max 2 Insulation Resistance: 10MΩ Min 3 Bounce: 20 m seconds max 4 Voltage: AC 250V 1minute Min
	10	Shock	<p>Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F</p> <ol style="list-style-type: none"> 1) Acceleration; 50G 2) Action time: 11±1m seconds 3) Testing Direction: 6 sides 4) Test Cycle: 3 times in each direction 	Ditto

Multi-Direction Switches

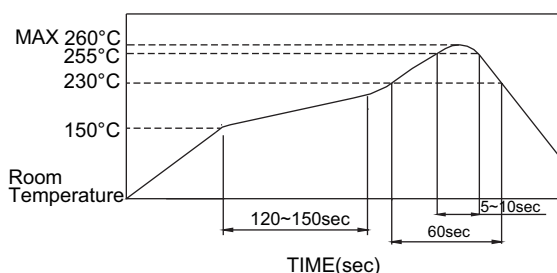
SMT Double Action Switch

MB6 Series

DURABILITY	11	Operating Life	<p>Measurements shall be made following the test set forth below :</p> <p>1 5mA,5 VDC resistive load 2 Applying a static load the operating force to the center of the stem in the direction of operation Static Load = OF Max. 3 Cycle of Operation : 30,000 cycles Min</p>	<p>1 Operating force:±30% of initial force 2 Contact Resistance: 10Ω Max 3 Insulation Resistance: 10MΩ Min 4 Bounce: 20 m seconds max 5 Voltage: AC 250V 1minute Min</p>	
	WEATHER-PROOF	12	Resistance Low Temperature	<p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made:</p> <p>1 Temperature:-30±2°C 2 Time: 96 hours</p>	<p>1 Contact Resistance: 10Ω Max 2 Insulation Resistance: 10MΩ Min 3 Bounce: 20 m seconds max 4 Voltage: AC 250V 1minute Min</p>
		13	Heat Resistance	<p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made:</p> <p>1 Temperature:85±2°C 2 Time: 96 hours</p>	Ditto
14		Humidity Resistance	<p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made:</p> <p>1 Temperature:40±2°C 2 Relative Humidity: 90~95% 3 Time: 96 hours</p>	Ditto	

5. SOLDERING CONDITIONS:

■ Reflow Soldering



■ Manual Soldering

Soldering Temperature	Max. 350 °C
Continuous Soldering Time	Max. 5 seconds