

Micro Miniature Pushbuttons with Tactile Feel Vertical Thru-Hole Mounting

FSM Series

MATERIAL SPECIFICATIONS:

Contacts.....Silverplate
Case MaterialPolyamide
Actuator Material.....Polyester
Terminals/Fixed Contacts.....Silver plate

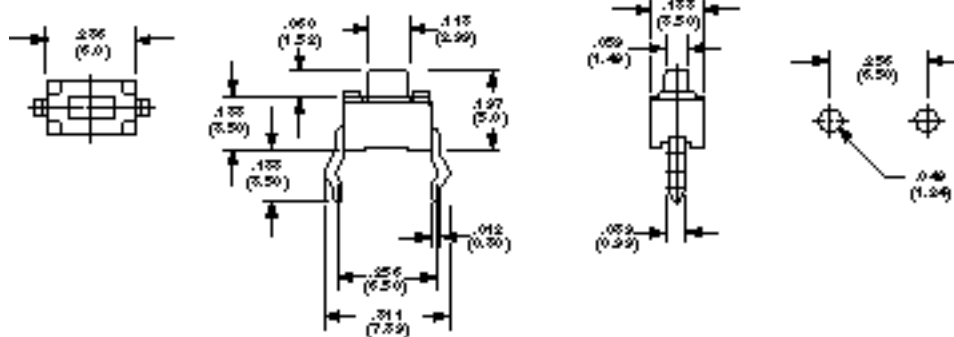
ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature.....-40°F to +176°F (-40°C to + 80°C)
Storage Temperature.....-40°F to +176°F (-40°C to + 80°C)
Solder Heat ResistanceSee Page M6

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating50 mA @ 12 VDC
Initial Contact Resistance.....500 Milliohms max.
Insulation Resistance500 Megohms min. @ 500 VDC
Dielectric Strength250 VAC
Actuation Force.....100 Grams
Actuator Travel0.010"(.254)
Life Expectancy20,000 Cycles

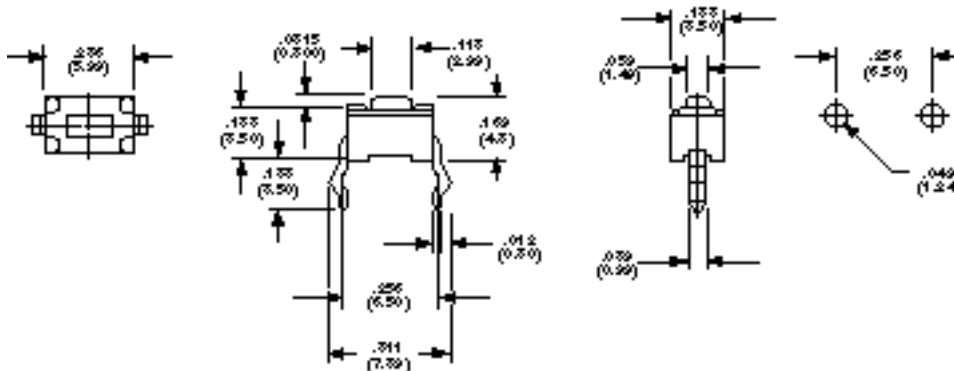
6 x 3.5mm



FSM

Model	Type		
FSM	SPST	Off	(On)
(On) indicates momentary position.			

6 x 3.5mm



FSMC

Model	Type		
FSMC	SPST	Off	(On)
(On) indicates momentary position.			

Need more technical information?

Contact your local ABE office--(800) 453-1692--or AboveBoardElectronics.com.

Above Board Electronics
1918 Junction Avenue
San Jose, CA 95131

FSMJ Series

Micro Miniature Vertical Pushbuttons with Tactile Feel & ESD Grounding Terminal

FSMJRT Series

Above Board Electronics
1918 Junction Avenue
San Jose, CA 95131

FSMRAJ Series *Micro Miniature Pushbuttons with Tactile Feel "Right Angle"*

MATERIAL SPECIFICATIONS:

Contacts.....Copper alloy, silver plate
CasePolyamide
Actuator Button.....Polyacetal Resin
Frame.....Copper alloy, tin plate
TerminalsCopper alloy, silver plate

ENVIRONMENTAL SPECIFICATIONS

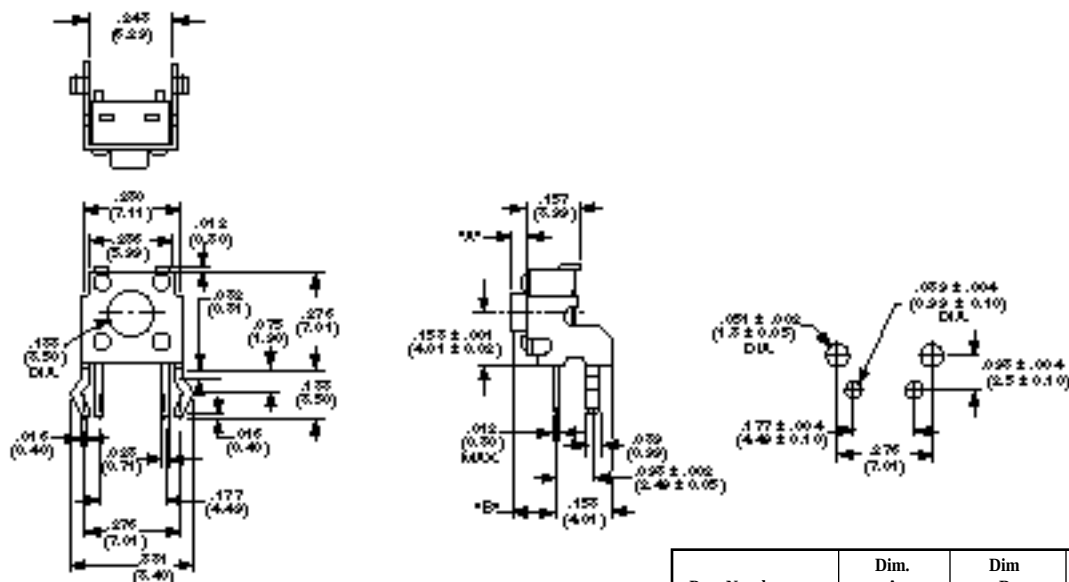
Operating Temperature..... -4°F to +158°F (-20°C to + 70°C)
Storage Temperature.....-22°F to +176°F (-30°C to +80°C)
Solder Heat ResistanceSee Page M6

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating50 mA @ 12 VDC
Initial Contact Resistance.....100 Milliohms max.
Insulation Resistance100 Megohms min. @ 100 VDC
Dielectric Strength250 VAC
Actuation Force.....See Below
Actuator Travel012" (0,3)
Life Expectancy100,000 Cycles



FSMRA1J



Type	Off	On
SPST		
	(On) indicates momentary position.	

Part Number	Dim. A	Dim B	Button Color
FSMRA 1J	.022" (0,55)	.124" (3,15)	Black
FSMRA 2J	.049" (1,25)	.152" (3,86)	Black
FSMRA 3J	.128" (3,25)	.230" (5,84)	Blue
FSMRA 4J	.226" (5,74)	.329" (8,36)	Black
FSMRA 5J	.140" (3,55)	.242" (6,15)	Ivory
FSMRA 6J	.167" (4,25)	.341" (8,66)	White
FSMRA 7J	.364" (9,25)	.467" (11,86)	Black

PART NUMBERING SEQUENCE

Model	Actuator Length	Temperature	Actuation Force
FSMRA			
	ACTUATOR LENGTH DIM "A"	TEMPERATURE H = HIGH TEMP. (ACTUATOR OPTIONS 1 - 2)	BLANK = 160 g (STD.) A = 260 g (OPT.) AA = 520 g (OPT.) L = 100 g (OPT.)
	.022" (0,56)		
	.049" (1,24)		
	.128" (3,25)		
	.226" (5,74)		
	.140" (3,55)		
	.167" (4,24)		
	.364" (9,24)		
	1		
	2		
	3		
	4		
	5		
	6		
	7		
	SWITCH HEIGHT DIM "B"		
	.124" (3,15)		
	.152" (3,86)		
	.230" (5,84)		
	.329" (8,36)		
	.242" (6,15)		
	.341" (8,66)		
	.467" (11,86)		

CONSULT FACTORY
FOR OTHER OPTIONS

Micro Miniature Pushbuttons "Horizontal Gang" FSMRAJ Series

MATERIAL SPECIFICATIONS:

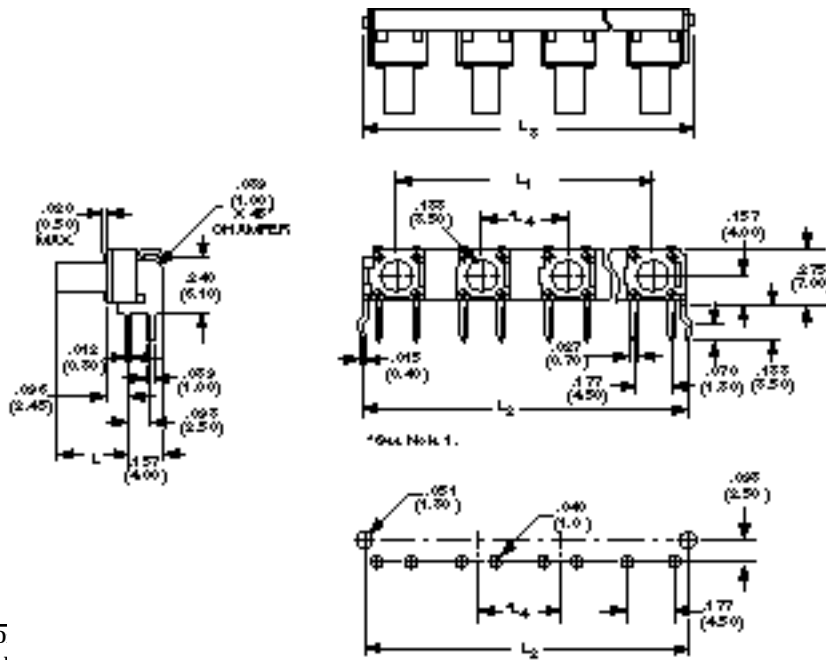
Contacts.....Copper alloy, silver plate
CasePolyamide
Actuator Button.....Polyacetal Resin
Frame.....Stainless Steel
TerminalsCopper alloy, silver plate

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature..... -4°F to +158°F (-20°C to + 70°C)
Storage Temperature.....-22°F to +176°F (-30°C to +80°C)
Solder Heat ResistanceSee Page M6

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating50 mA @ 12 VDC
Initial Contact Resistance.....100 Milliohms max.
Insulation Resistance100 Megohms min. @ 100 VDC
Dielectric Strength250 VAC
Actuation Force.....See Below
Actuator Travel012" (0,3)
Life Expectancy100,000 Cycles



FSMRAJ

# of Positions	D		
	L ₁	L ₂	L ₃
3	.787" (20,00)	1.06" (27,00)	1.11" (28,19)
4	1.18" (30,00)	1.46" (37,00)	1.51" (38,35)
5	1.57" (40,00)	1.85" (47,00)	1.90" (48,26)
6	1.97" (50,00)	2.24" (57,00)	2.30" (58,42)
7	2.36" (60,00)	2.64" (67,00)	2.69" (68,32)
9	3.15" (80,00)	3.43" (87,00)	3.48" (88,40)

Type	Off	On
SPST		
(On) indicates momentary position.		

*Note 1: L₄ = .394 (10,00) or .590 (15,00) Center line spacing

PART NUMBERING SEQUENCE

Model	Actuator Length	Number of Ganged Switches	*Centerline Spacing	Actuation Force
FSMRA				
	1 - .124 (3,15) 2 - .151 (3,85) 6 - .269 (6,85) 9 - .328 (8,35)	3, 4, 5, 6, 7, 8 or 9	10 - .394 (10,00) 15 - .433 (15,00) (L ₄ Dimension)	BLANK = 100 -350g L = 100 g

CONSULT FACTORY
FOR OTHER OPTIONS

Need more technical information?

Contact your local ABE office--(800) 453-1692--or AboveBoardElectronics.com.

Above Board Electronics
1918 Junction Avenue
San Jose, CA 95131

FSM2RA2J Series *Micro Miniature Pushbuttons with “Vertical Dual Two Story”*

MATERIAL SPECIFICATIONS:

Contacts.....Copper alloy, silver plate
CasePolyamide
Actuator Button.....Polyacetal Resin
Frame.....Copper alloy, tin plate
TerminalsCopper alloy, silver plate

ENVIRONMENTAL SPECIFICATIONS

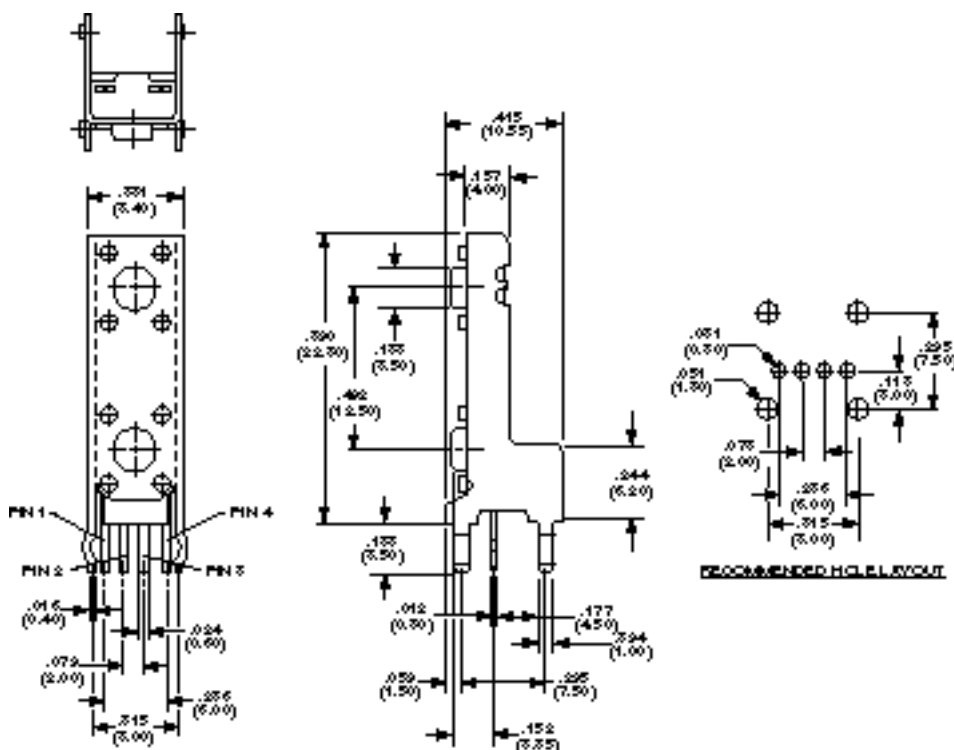
Operating Temperature..... -4°F to +158°F (-20°C to + 70°C)
Storage Temperature.....-22°F to +176°F (-30°C to +80°C)
Solder Heat ResistanceSee Page M6

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating50 mA @ 12 VDC
Initial Contact Resistance.....100 Milliohms max.
Insulation Resistance100 Megohms min. @ 100 VDC
Dielectric Strength250 VAC
Actuation Force.....160 Grams AVG.
Actuator Travel010"(.254)
Life Expectancy100,000 cycles



FSM2RA2J



Note: Pins #1 and #4 are designated for the top switch
Pins #2 and #3 are designated for the bottom switch

Model	Type		
FSM2RA2J	SPST	Off	(On)
(On) indicates momentary position.			

Micro Miniature Pushbuttons with "Square Button"

FSMCD/A & FSMRACD/A

MATERIAL SPECIFICATIONS:

Contacts.....Copper alloy, silver plate
CasePolyamide
Actuator Button.....Polyacetal Resin
Frame.....Stainless Steel
TerminalsCopper alloy, silver plate

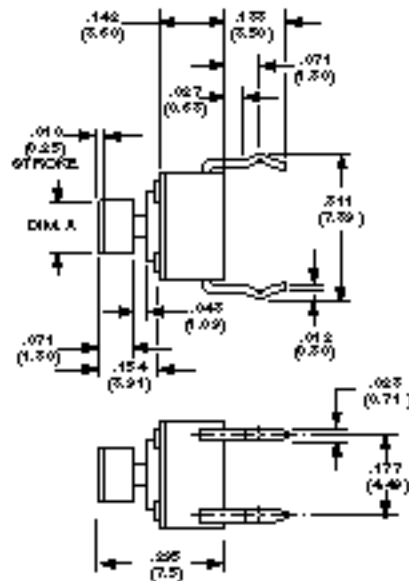
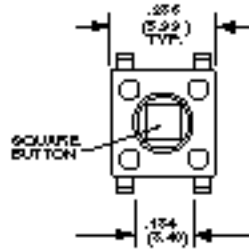
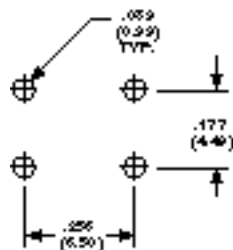
ENVIRONMENTAL SPECIFICATIONS

Operating Temperature..... -4°F to +158°F (-20°C to +70°C)
Storage Temperature.....-22°F to +176°F (-30°C to +80°C)
Solder Heat ResistanceSee Page M6

TYPICAL PERFORMANCE CHARACTERISTICS:

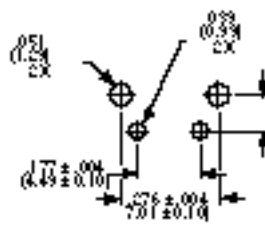
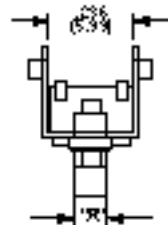
Contact Rating50 mA @ 12 VDC
Initial Contact Resistance.....100 Milliohms Max.
Insulation Resistance100 Megohms min. @ 100 VDC
Dielectric Strength250 VAC
Actuation Force.....100 - 350 Grams
Actuator Travel010"(.254)
Life Expectancy100,000 Cycles

6 x 6 mm

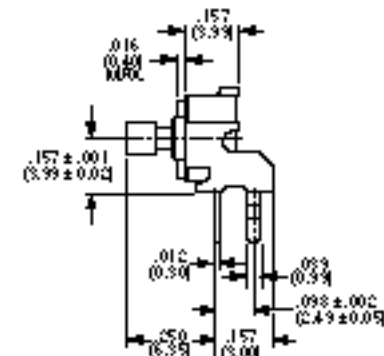
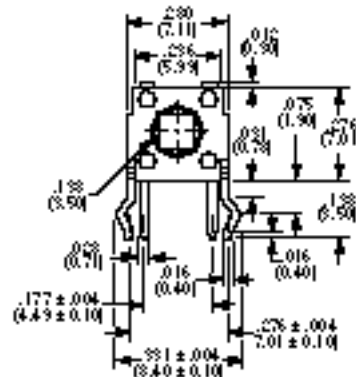


FSMCD/A

Model
FSMCD
FSMCD



FSMRACD/A



Model Number	Dim. A	Button Color
FSMRACD	.095 (2.42)	Blue
FSMRACDA	.110 (2.80)	Black

Need more technical information?

Contact your local ABE office--(800) 453-1692--or AboveBoardElectronics.com.

Above Board Electronics
1918 Junction Avenue
San Jose, CA 95131

FSMSM/JM Series *Micro Miniature Pushbuttons* “Surface Mount Gullwing”

MATERIAL SPECIFICATIONS:

Contacts.....Silverplate
Case MaterialSee Below
Actuator Material.....Polyamide
TerminalsSilver plate

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature.....-40°F to +176°F (-40°C to + 80°C)
Storage Temperature.....-40°F to +176°F (-40°C to + 80°C)
Solder Heat ResistanceFSMSM IR Soldering EIA-364-56,
Procedure 5 Level 1, 215° C
FSMJM IR Soldering per EIA 364-56
Procedure 5, level 2, 240° C

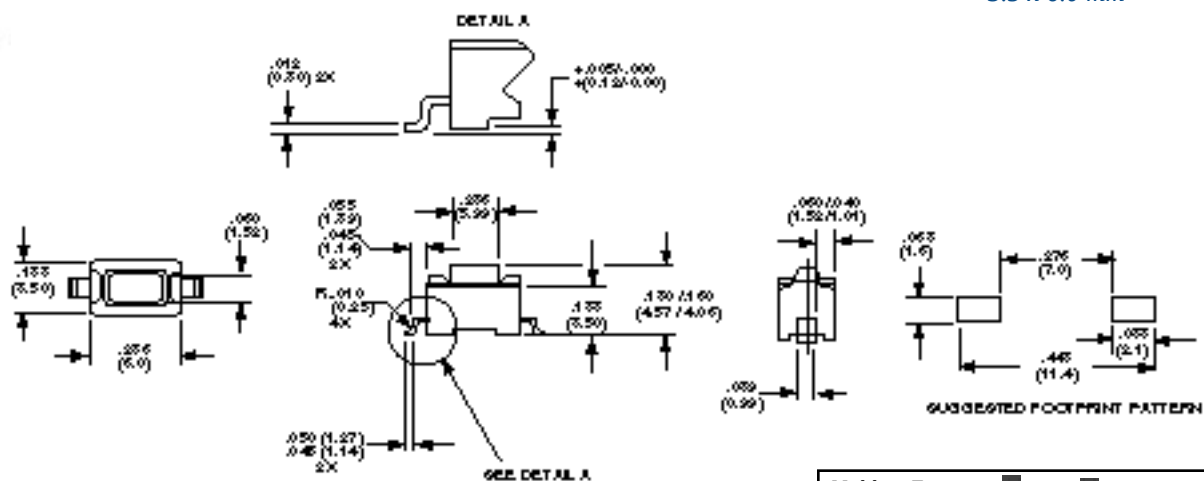
TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating50 mA @ 12 VDC
Initial Contact Resistance.....500 Milliohms max.
Insulation Resistance500 Megohms min. @ 500 VDC
Dielectric Strength250 VAC
Actuation Force.....100 Grams
Actuator Travel0.10"(.254)
Life Expectancy20,000 Cycles

3.5 x 6.0 mm



FSMSM



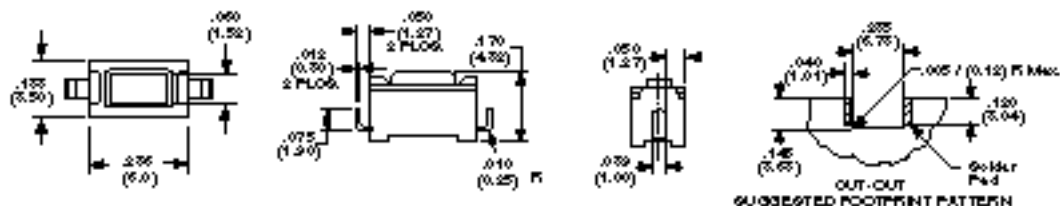
Model	Type		
FSMSM	SPST	Off	(On)
(On) indicates momentary position.			

Available in optional Tape & Reel P/N FSMSMTR
Case Material Polyester

3.5 x 6.0 mm



FSMJM



OUT-OUT
SUGGESTED FOOTPRINT PATTERN



Model	Type		
FSMJM	SPST	Off	(On)
(On) indicates momentary position.			

Available in optional Tape & Reel P/N FSMJMTR
Case Material Polyamide

Micro Miniature Pushbuttons with “Surface Mount Gull Wing” FSMJSMA Series

MATERIAL SPECIFICATIONS:

Contacts.....Copper alloy, silver plate
CasePolyamide
Actuator Button.....Polyamide
Frame.....Copper alloy, tin plate
TerminalsCopper alloy, silver plate

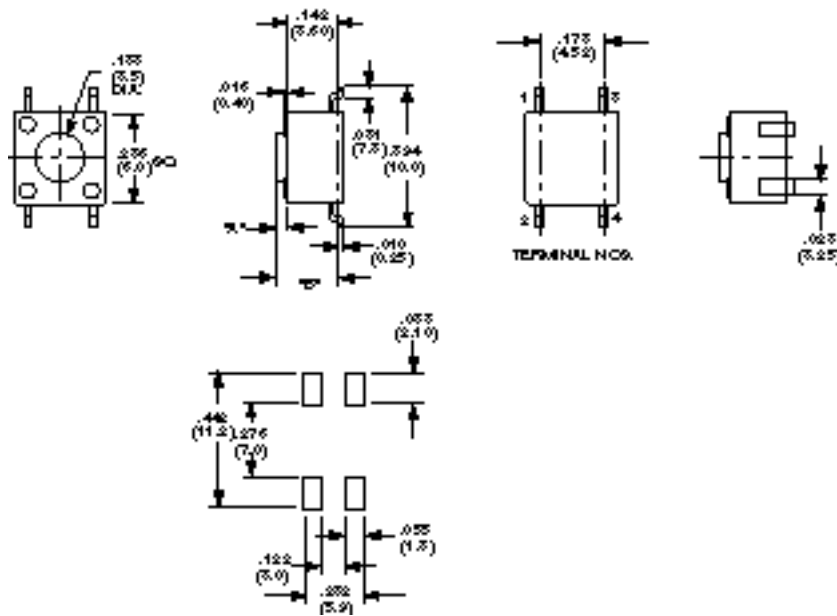
ENVIRONMENTAL SPECIFICATIONS

Operating Temperature..... -4°F to +158°F (-20°C to + 70°C)
Storage Temperature.....-22°F to +176°F (-30°C to +80°C)
Solder Heat ResistanceIR Soldering EIA-364-56
Procedure 5 Level 3, 260° C

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating50 mA @ 12 VDC
Initial Contact Resistance.....100 Milliohms max.
Insulation Resistance100 Megohms min. @ 100 VDC
Dielectric Strength250 VAC for 1 minute
Actuation Force.....100 - 350 Grams
Actuator Travel010"(.254)
Life Expectancy100,000 Cycles

6 x 6 mm



FSMJSMA

Part Number	Dim. A	Dim. B	Button Color
FSM2JSMA	.028" (0.70)	.169" (4.30)	Black
FSM4JSMA	.055" (1.40)	.196" (5.00)	Black
FSM6JSMA	.134" (3.40)	.276" (7.00)	Blue

Type	Off	On
SPST		
(On) indicates momentary position.		

See pages M2-M4 for application specific indexing.

Need more technical information?

Contact your local ABE office--(800) 453-1692--or AboveBoardElectronics.com.

Above Board Electronics
1918 Junction Avenue
San Jose, CA 95131

FSM1LP Series *Micro Miniature Pushbuttons with ESD GND Surface Mount Termination “Low Profile”*

MATERIAL SPECIFICATIONS:

Contacts.....Copper Alloy, silver plated
Case MaterialPPS
Stem.....PPS
CoverNickel, silver
TerminalsCopper alloy, silver plated

ENVIRONMENTAL SPECIFICATIONS:

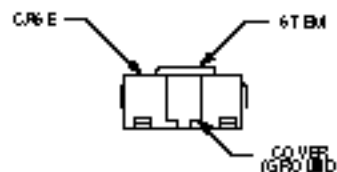
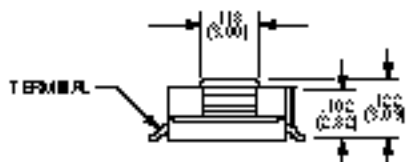
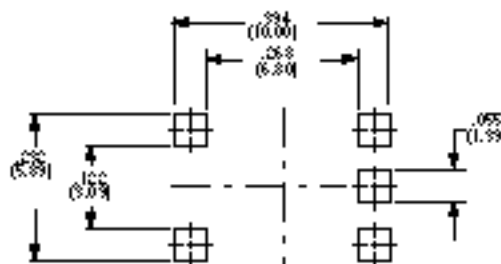
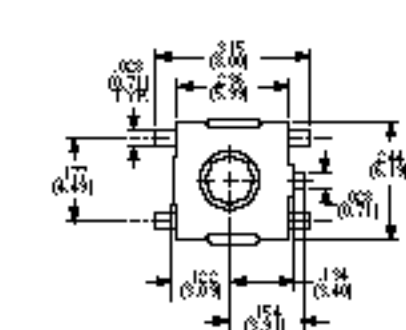
Operating Temperature.....-4°F to +158°F (-20°C to +70°C)
Storage Temperature.....-22°F to +176°F (-30°C to +80°C)
Solder Heat ResistanceIR Soldering EIA-364-56
Procedure 5 Level 2, 240° C

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating50mA @ 12 VDC
Initial Contact Resistance.....100 Milliohms max.
Insulation Resistance100 Megohms min. @ 100 VDC
Dielectric Strength250 VAC. 1 minute
Actuation Force.....See Below.
Life Expectancy100,000 Cycles



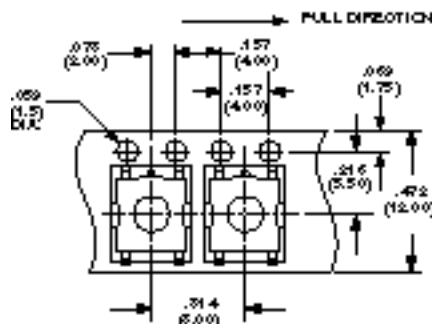
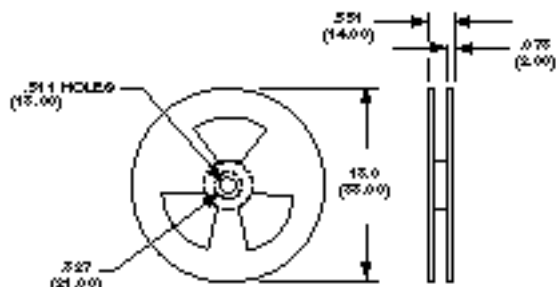
FSM1LP



Type	Off	On
SPST		
(On) indicates momentary position.		

Part Number	Actuator Color	Actuation Force
FSM1LP	Black	160 g.
FSM1LPA	Red	260 g.

FOR TAPE & REEL OPTION ADD "TR" SUFFIX TO PART NUMBER (QTY. PER REEL: 2K)



Micro Miniature Pushbuttons with Surface Mount "Dustproof"

FSMLBASM Series

MATERIAL SPECIFICATIONS:

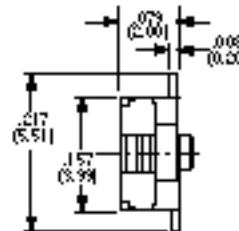
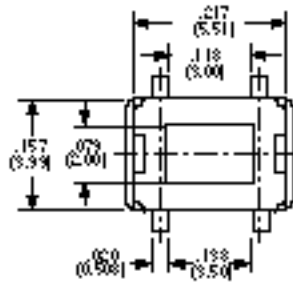
Contacts.....Copper Alloy, silver plated
Case MaterialPPS
Stem.....PPS
CoverStainless Steel
TerminalsCopper alloy, silver plated

ENVIRONMENTAL SPECIFICATIONS:

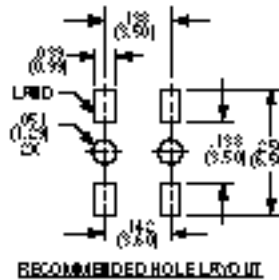
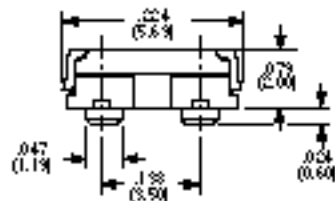
Operating Temperature.....-4°F to +158°F (-20°C to +70°C)
Storage Temperature.....-22°F to +176°F (-30°C to +80°C)
Solder Heat ResistanceIR Soldering per EIA-364-56
Procedure 5 Level 2, 240° C

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating50mA @ 12 VDC
Initial Contact Resistance.....100 Milliohms max.
Insulation Resistance100 Megohms min. @ 100 VDC
Dielectric Strength250 VAC 1 minute
Actuation Force.....200 Grams
Actuator Travel010"(.254)
Life Expectancy20,000 Cycles



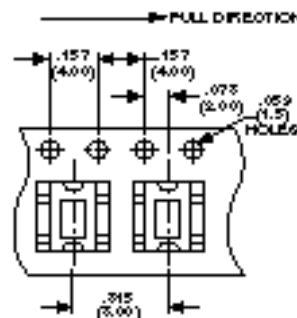
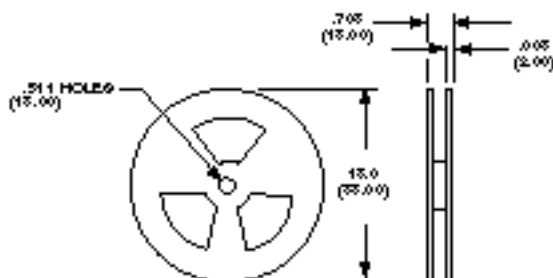
FSMLBASM



RECOMMENDED HOLE LAYOUT

Model	Type		
FSMLBASM	SPST	Off	(On)
(On) indicates momentary position.			

FOR TAPE & REEL OPTION ADD "TR" SUFFIX
TO PART NUMBER



Need more technical information?

Contact your local ABE office--(800) 453-1692--or AboveBoardElectronics.com.

Above Board Electronics
1918 Junction Avenue
San Jose, CA 95131

FSM100 - 104 Series *12mm Pushbuttons with “Flush and Extended Actuators”*

MATERIAL SPECIFICATIONS:

Contacts.....Copper alloy, silver plate
CasePolyester
Actuator Button.....Polyacetal Resin
Frame.....Polyamide
TerminalsCopper alloy

ENVIRONMENTAL SPECIFICATIONS

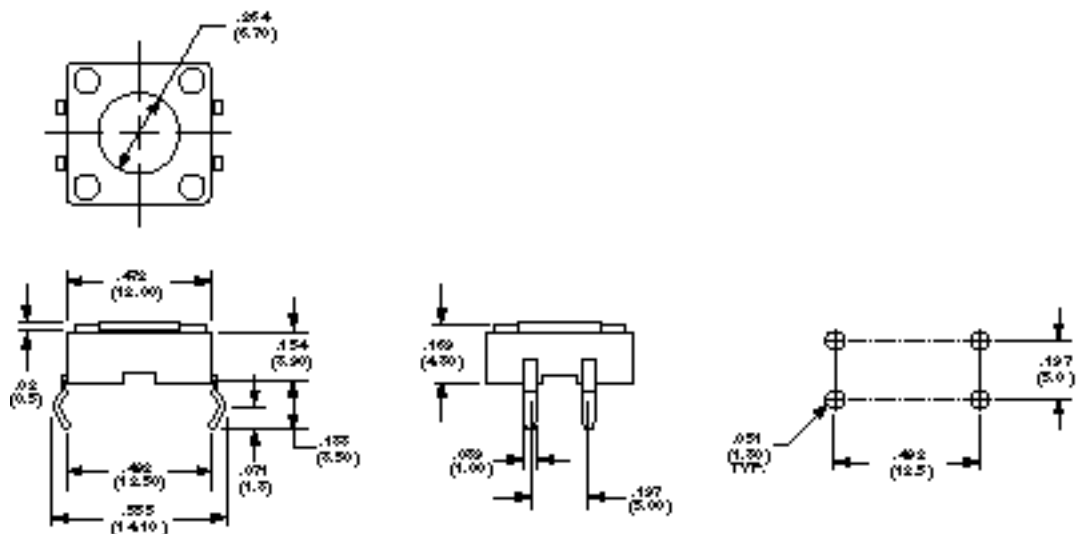
Operating Temperature.....4°F to +158°F (-20°C to +70°C)
Storage Temperature.....-22°F to +176°F (-30°C to +80°C)
Solder Heat ResistanceSee Page M6

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating50 mA @ 12 VDC
Initial Contact Resistance.....100 Milliohms max.
Insulation Resistance100 Megohms min. @100 VDC
Dielectric Strength250 VAC
Actuation Force.....160 Grams AVG.
Actuator Travel012"(0,3)
Life Expectancy100,000 cycles



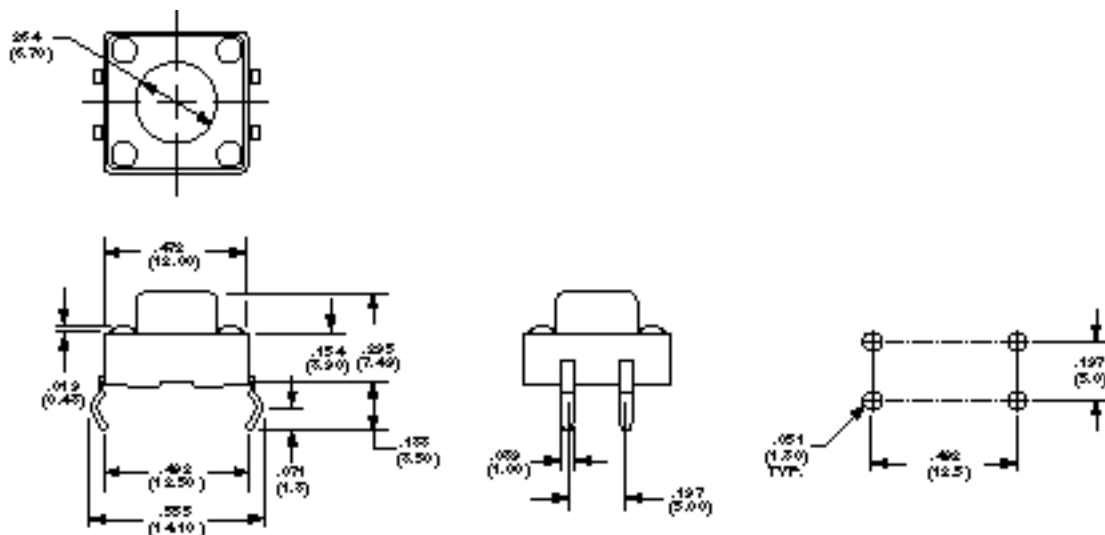
FSM100



Model	Type		
FSM100	SPST	Off	(On)
(On) indicates momentary position.			



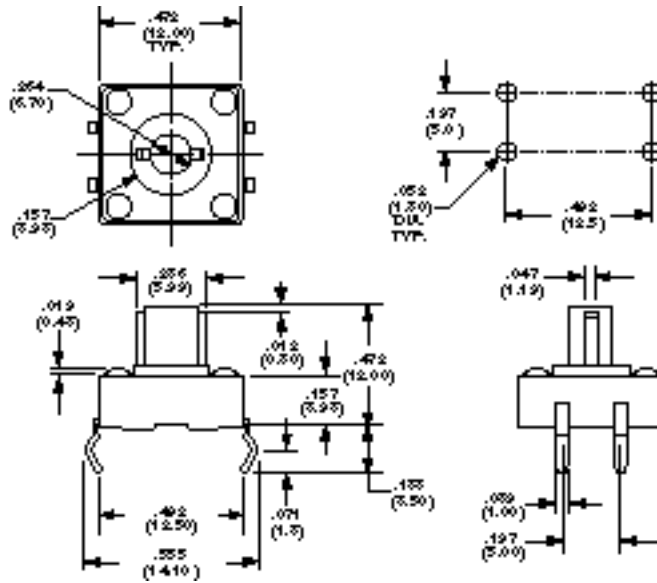
FSM101



Model	Type		
FSM101	SPST	Off	(On)
(On) indicates momentary position.			

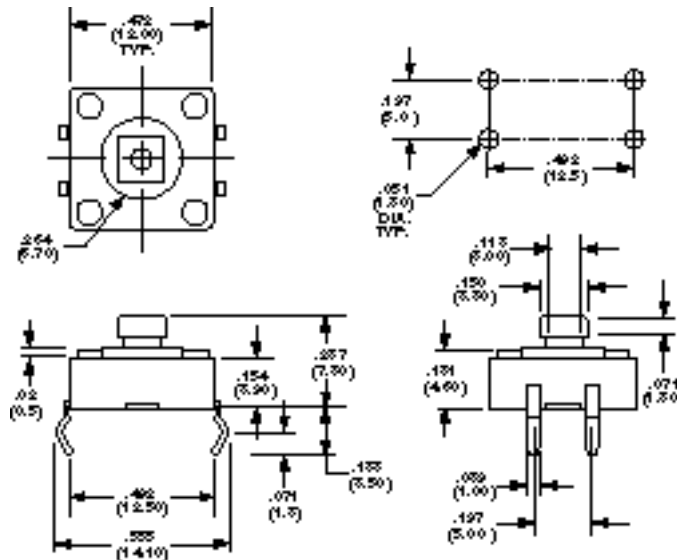
12mm Pushbuttons with Tactile Feel Vertical and "Right Angle"

FSM100 - 104 Series



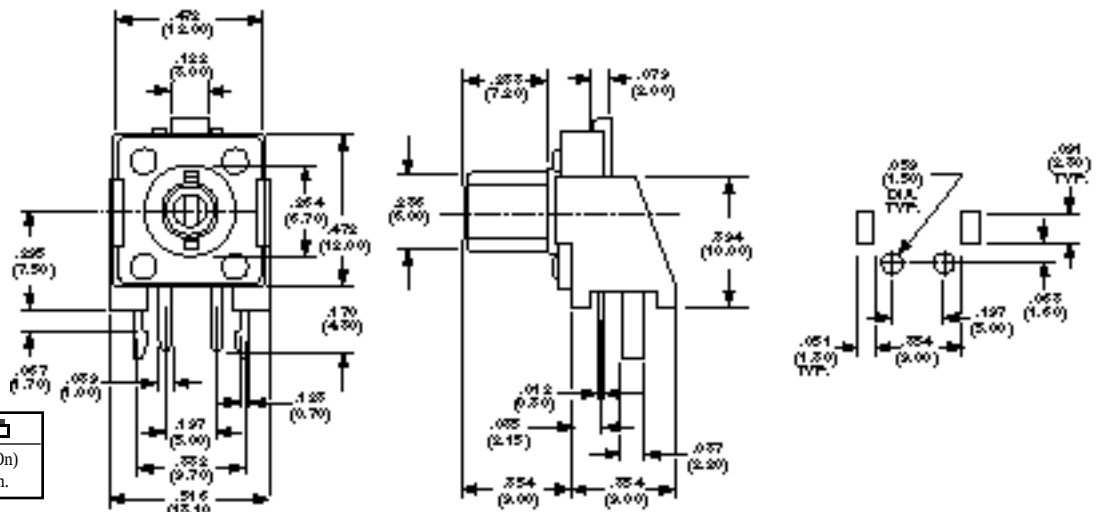
FSM102

Model	Type		
FSM102	SPST	Off	(On)
(On) indicates momentary position.			



FSM103

Model	Type		
FSM103	SPST	Off	(On)
(On) indicates momentary position.			



Model	Type		
FSM104	SPST	Off	(On)
(On) indicates momentary position.			

Need more technical information?

Contact your local ABE office--(800) 453-1692--or AboveBoardElectronics.com.

Above Board Electronics
1918 Junction Avenue
San Jose, CA 95131