

B SERIES TACT SWITCH

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THBM02



THBM05



TVBF09



TVBU13



TVBR14



TVBF18



TVBF22



THBP04



THBP07



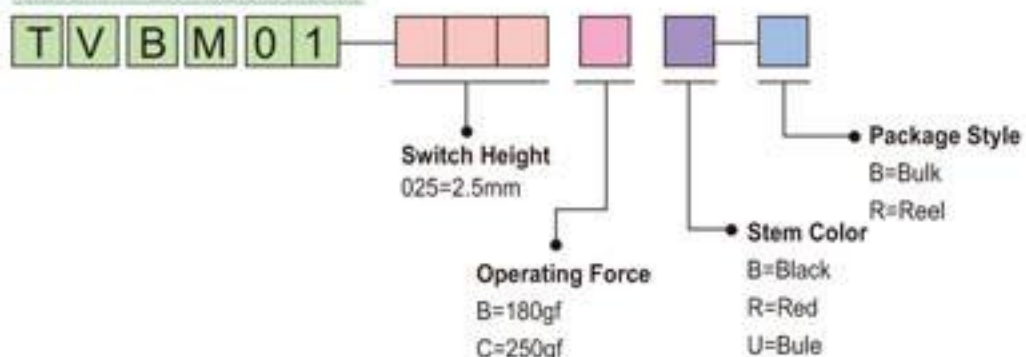
TVBP21

B SERIES

3.7x6.3 SMT & Soft Feeling Switch



HOW TO ORDER



Features

- Compact, low-profile surface-mounting type keyboard switches
- Contacts are completely sealed, enhancing reliability
- Reflow solderable

Applications

- Operating switches in all types of electronic equipment such as audio apparatus, office equipment, communications apparatus, measuring instruments, TV sets, VCRs, etc

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MW min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mW max.
Durability	Lifetime	B:100,000 Cycles C:50,000 Cycles
Mechanical performance	Operating force	B:180gf C:250gf
	Travel	0.40 ± 0.1mm

Diagram

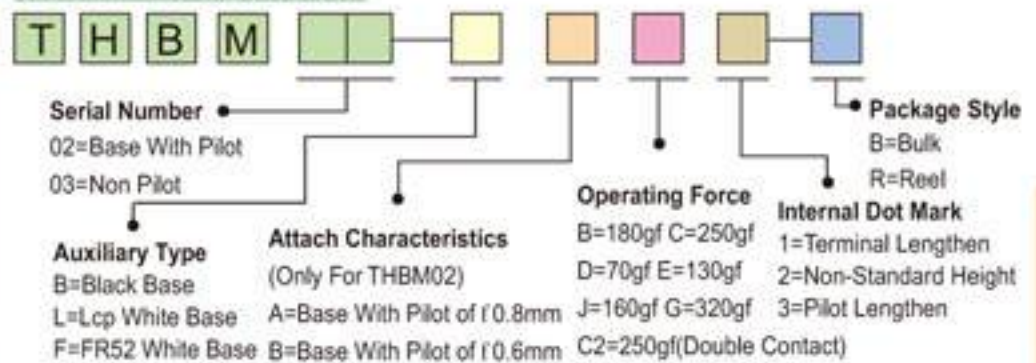
No.	Dimensions	Circuit Diagram Pad Layout
1	• TVBM01	

B SERIES

2.5x7.0 SMT & Right Angle Tact Switch



HOW TO ORDER



Features

- Horizontal type capable of operating in the horizontal direction to the PC board.
- Reflow solderable.
- Packaged with a 16mm wide embossed taping.

Applications

- Various portable electronic devices
- For operating various compact electronic devices such as mobile phones and communication devices, that require high density mounting
- For operating various MP4, MP3.

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MW/min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mW max.
Durability	Lifetime	J:D:E:B:50,000Cycles C:G:30,000 Cycles
Mechanical performance	Operating force	B:180gf C:250gf D:70gf E:130gf J:160gf G:320gf
	Travel	0.25 ± 0.1mm

Diagram

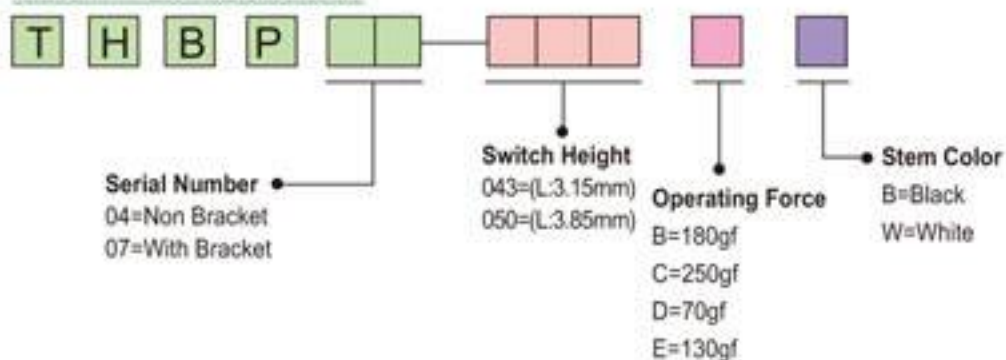
No.	Dimensions	Circuit Diagram Pad Layout
1	● THBM02	
2	● THBM03	

B SERIES

3.5x6.0 Horizontal Push & Bracket Shape Tact Switch



HOW TO ORDER



Features

- Horizontal type capable of operating in the horizontal direction to the PC board.
- Reflow solderable.
- Packaged with a 16mm wide embossed taping.

Applications

- Various portable electronic devices
- For operating various compact electronic devices such as mobile phones and communication devices, that require high density mounting
- For operating various MP4, MP3.

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MW min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mW max.
Durability	Lifetime	D:E:B:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	B:180gf C:250gf D:70gf E:130gf
	Travel	0.25 ± 0.1mm

Diagram

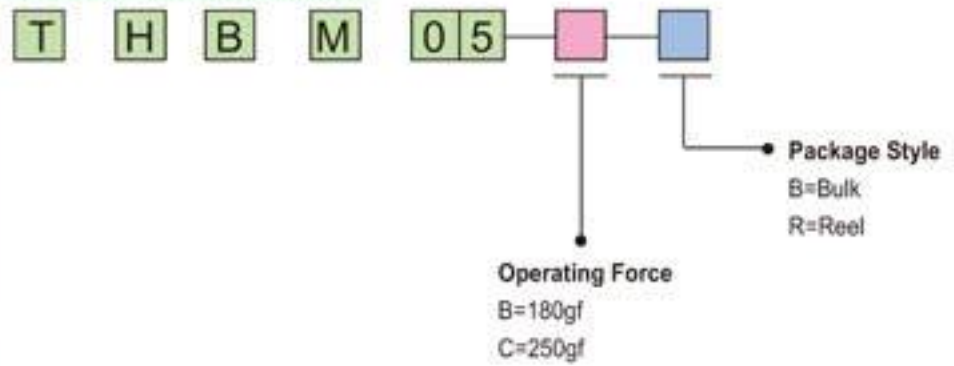
No.	Dimensions	Circuit Diagram Pad Layout
1	● THBP04 L: 3.15, 3.85	
2	● THBP07 L: 3.15, 3.85	

B SERIES

4.0x6.1 Horizontal Push Tact Switch



HOW TO ORDER



Features

- Horizontal type capable of horizontally operating to the PC board.
- Reflow solderable.
- Packaged with a 16mm wide embossed taping.

Applications

- For operating various electronic devices such as audio devices, video recorders, communication devices, cameras, home appliances etc.

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MW min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mW max.
Durability	Lifetime	50,000 Cycles min.
Mechanical performance	Operating force	B:180gf C:250gf
	Travel	0.30 ± 0.1mm

Diagram

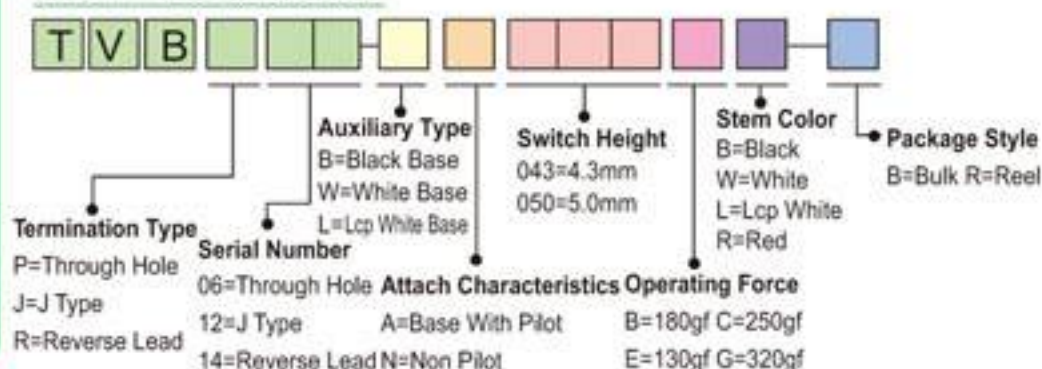
No.	Dimensions	Circuit Diagram Pad Layout
1	• THBM05	

B SERIES

3.5x6.0 Vertical Push Tact Switch



HOW TO ORDER



Features

- Snap-in type, which can be directly mounted on PC board.
- Sharp "click" feel with a positive tactile feedback

Applications

- Operating switches in all types of electronic equipment such as audio apparatus, office equipment, communication apparatus, measuring instruments, TV sets, VCRs, etc

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MW min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mW max.
Durability	Lifetime	D:E:B:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	B:180gf C:250gf D:70gf E:130gf
	Travel	0.25 ± 0.1mm

Diagram

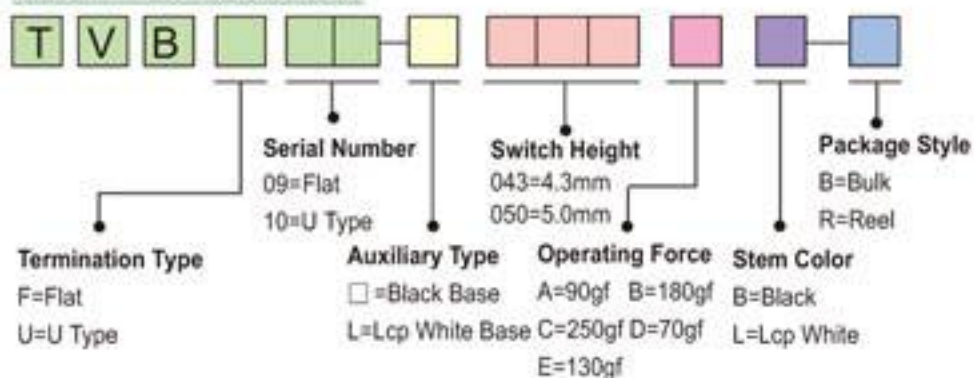
No.	Dimensions	Circuit Diagram					
		Pad Layout					
1	● TVBP06		<table><tr><td>H</td></tr><tr><td>4.3</td></tr><tr><td>5.0</td></tr></table>	H	4.3	5.0	
				H			
4.3							
5.0							
2	● TVBJ12		<table><tr><td>H</td></tr><tr><td>4.3</td></tr><tr><td>5.0</td></tr></table>	H	4.3	5.0	
				H			
4.3							
5.0							
3	● TVBR14		<table><tr><td>H</td></tr><tr><td>4.3</td></tr><tr><td>5.0</td></tr></table>	H	4.3	5.0	
				H			
4.3							
5.0							

B SERIES

3.5x6.0 Vertical Push Tact Switch



HOW TO ORDER



Features

- Reflow solderable.
- Packaged with a 16mm wide embossed taping.

Applications

- Operating switches in all types of electronic equipment such as audio apparatus, office equipment, communication apparatus, measuring instruments, TV sets, VCRs, etc

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MW min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mW max.
Durability	Lifetime	A:D:E:B:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	A:90gf B:180gf C:250gf D:70gf E:130gf
	Travel	0.25 ± 0.1mm

Diagram

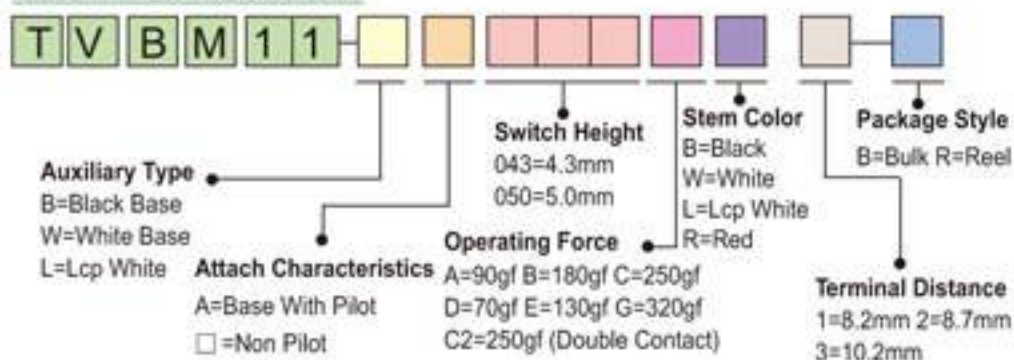
No.	Dimensions	Circuit Diagram Pad Layout			
1	● TVBF09 <table><tr><td>H</td></tr><tr><td>4.3</td></tr><tr><td>5.0</td></tr></table>	H	4.3	5.0	
	H				
4.3					
5.0					
2	● TVBU10 <table><tr><td>H</td></tr><tr><td>4.3</td></tr><tr><td>5.0</td></tr></table>	H	4.3	5.0	
	H				
4.3					
5.0					

B SERIES

3.5x6.0 SMT Type Tact Switch



HOW TO ORDER



Features

- Reflow solderable
- Sharp "click" feel with a positive tactile feedback

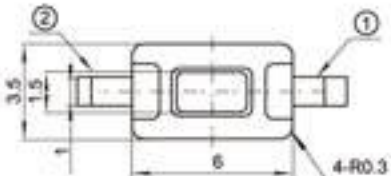
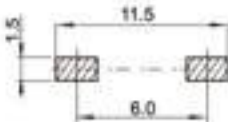
Applications

- Operating switches in all types of electronic equipment such as audio apparatus, office equipment, communication apparatus, measuring instruments, TV sets, VCRs, etc

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MW min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mW max.
Durability	Lifetime	A:D:E:B:50,000Cycles C:G:30,000 Cycles C2:100,000 Cycles
Mechanical performance	Operating force	A:90gf B:180gf C:250gf D:70gf E:130gf G:320gf
	Travel	0.25 ± 0.1mm

Diagram

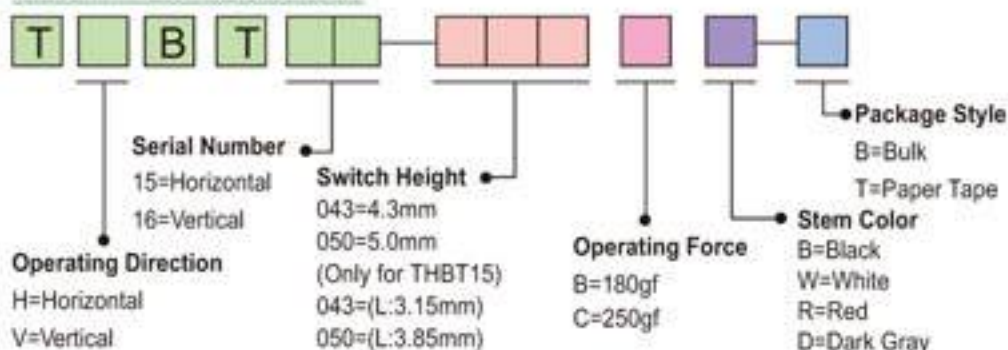
No.	Dimensions	Circuit Diagram Pad Layout								
1	● TVBM11  <table><tr><th>H</th><th>A</th></tr><tr><td>4.3</td><td>8.2</td></tr><tr><td>5.0</td><td>8.7</td></tr><tr><td></td><td>10.2</td></tr></table>	H	A	4.3	8.2	5.0	8.7		10.2	 
		H	A							
		4.3	8.2							
		5.0	8.7							
	10.2									

B SERIES

3.5x6.0 Taping Type Tact Switch



HOW TO ORDER



Features

- Supplied with radial taping.
- Allows automatic insertion onto PC board with the radial auto insertion machine

Applications

- Operating switches in all types of electronic equipment such as audio apparatus, office equipment, communication apparatus, measuring instruments, TV sets, VCRs, etc

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MW min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mW max.
Durability	Lifetime	B:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	B:180gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

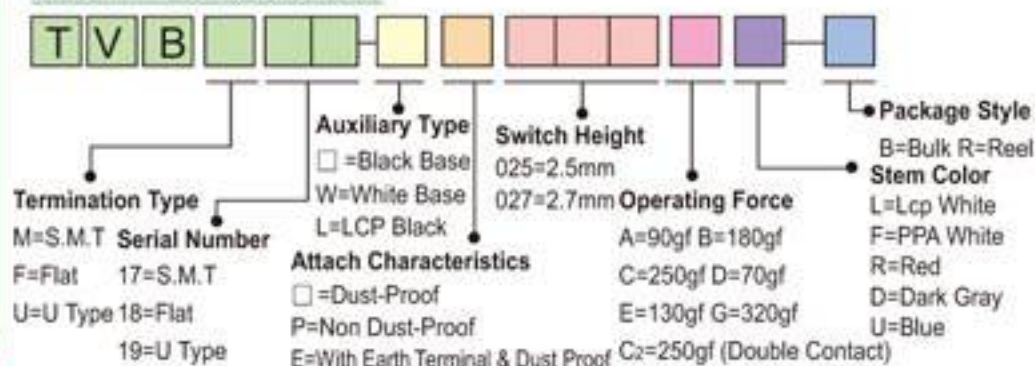
No.	Dimensions	Circuit Diagram Pad Layout			
1	● THBT15 <table><tr><th>L</th></tr><tr><td>3.15</td></tr><tr><td>3.85</td></tr></table>	L	3.15	3.85	
L					
3.15					
3.85					
2	● TVBT16 <table><tr><th>H</th></tr><tr><td>4.3</td></tr><tr><td>5.0</td></tr></table>	H	4.3	5.0	
H					
4.3					
5.0					

B SERIES

3.7x6.1 SMT Type Tact Switch



HOW TO ORDER



Features

- Highly reliable contacts sealed structure.
- Larger top surface of stem improves mounting speed.
- Reflow solderable.
- Packaged with a 16mm wide embossed taping.

Applications

- Operating switches in all types of electronic equipment such as audio apparatus, office equipment, communication apparatus, measuring instruments, TV sets, VCRs, etc

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MWmin. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mWmax.
Durability	Lifetime	A:D:E:8:50,000Cycles C:G:30,000 Cycles C2:100,000 Cycles
Mechanical performance	Operating force	A:90gf B:180gf C:250gf D:70gf E:130gf G:320gf
	Travel	0.25 ± 0.1mm

Diagram

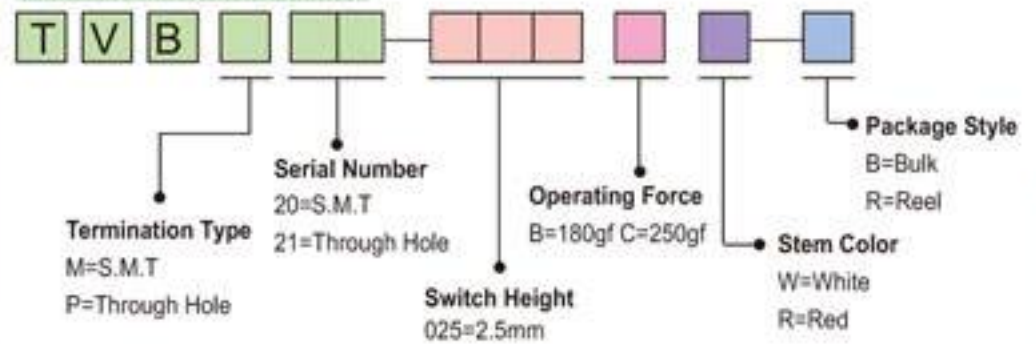
No.	Dimensions	Circuit Diagram
		Pad Layout
1	TVBM17 	
2	TVBF18 	
3	TVBU19 	

B SERIES

3.5x6.1 Through Hole & SMT Type Tact Switch



HOW TO ORDER



Features

- Highly reliable contacts sealed structure.
- Larger top surface of stem improves mounting speed.
- Reflow solderable.

Applications

- Operating switches in all types of electronic equipment such as audio apparatus, office equipment, communication apparatus, measuring instruments, TV sets, VCRs, etc

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MW min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mW max.
Durability	Lifetime	B:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	B:180gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

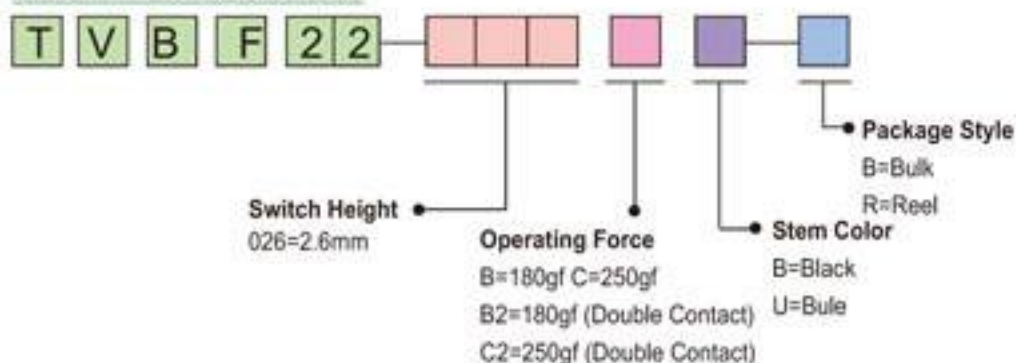
No.	Dimensions	Circuit Diagram Pad Layout
1	TVBM20	
2	TVBP21	

B SERIES

3.8x6.0 Normal Closed Type Tact Switch



HOW TO ORDER



Features

- Highly reliable contacts sealed structure.
- Larger top surface of stem improves mounting speed.
- Reflow solderable.

Applications

- Operating switches in all types of electronic equipment such as audio apparatus, office equipment, communication apparatus, measuring instruments, TV sets, VCRs, etc

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MW min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mW max.
Durability	Lifetime	B:50,000 Cycles C:30,000 Cycles B2:C2:100,000 Cycles
Mechanical performance	Operating force	B:180gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

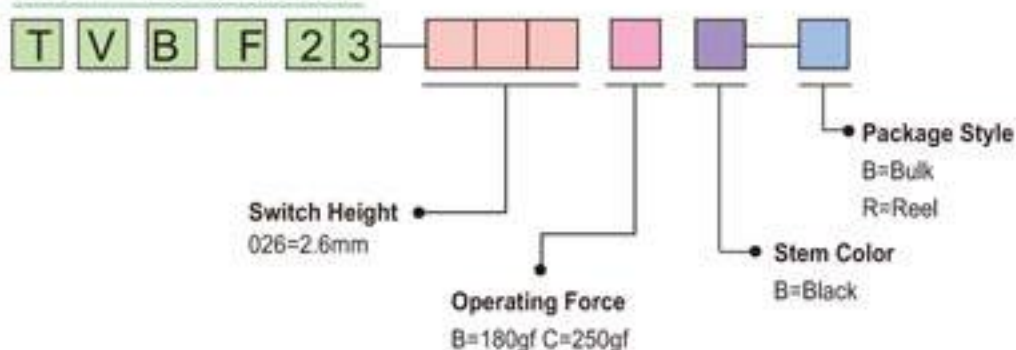
No.	Dimensions	Circuit Diagram Pad Layout
1	TVBF22	

B SERIES

3.8x6.0 Normal Closed Type Tact Switch



HOW TO ORDER



Features

- Highly reliable contacts sealed structure.
- Larger top surface of stem improves mounting speed.
- Reflow solderable.
- Packaged with a 16mm wide embossed taping.

Applications

- Operating switches in all types of electronic equipment such as audio apparatus, office equipment, communication apparatus, measuring instruments, TV sets, VCRs, etc

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MW min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mW max.
Durability	Lifetime	B:50,000 Cycles C:30,000 Cycles
Mechanical performance	Operating force	B:180gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	TVBF23	