

# Electronic Components





## Master Selection Guide



Relays  
Switches  
Photomicrosensors  
Micro Sensors  
Connectors







# Switches - Snap Action

				
	Z	D3V	V	VX
<b>Dimensions mm (in)</b>	24.2 H x 17.45 D x 49.2 W (0.95 x 0.69 x 1.93)	15.9 H x 10.3 D x 27.8 W (0.63 x 0.41 x 1.09)	15.9 H x 10.3 D x 27.8 W (0.63 x 0.41 x 1.09)	18.8 H x 10.3 D x 27.8 W (0.74 x 0.41 x 1.09)
<b>Features</b>	<ul style="list-style-type: none"> <li>• General Purpose Snap Action Switch</li> <li>• High precision 15 A switch available in a variety of styles</li> </ul>	<ul style="list-style-type: none"> <li>• Miniature Snap Action Switch</li> <li>• Environmentally friendly: free of beryllium copper &amp; lead</li> <li>• Maximum operating temperature of 105°C (standard versions)</li> <li>• Internally or externally fitted levers</li> <li>• 200°C versions available (D3V-T)</li> </ul>	<ul style="list-style-type: none"> <li>• Miniature Snap Action Switch</li> <li>• Industry standard design with 15 A (V-15G) or 10 A (V-10G) rating</li> <li>• Cadmium-free contacts</li> <li>• Internal lever options</li> </ul>	<ul style="list-style-type: none"> <li>• Miniature Snap Action</li> <li>• Low operating force</li> <li>• High contact reliability</li> <li>• 0.1 A to 5 A</li> </ul>
<b>Contact Rating(s)</b>				
<b>Resistive load</b>	0.1A @ 125VAC 15A @ 250VAC*	21/16/11/6A @ 125/250VAC 0.1A @ 125VAC	15A @ 250VAC (V-15G) 10A @ 250VAC (V-10G)	5A @ 250VAC 0.1A @ 125VAC
<b>Contact form</b>	SPDT	SPDT, SPST-NC, SPST-NO	SPDT, SPST-NC, SPST-NO	SPDT, SPST-NO, SPST-NC
<b>Operating force (OF)*</b>	250g to 350g	50g, 100g, or 200g	100g, 200g, or 400g (V-15G) 100g or 200g (V-10G)	25g, 50g
<b>Mechanical service life</b>	Refer to "SPECIFICATIONS" section of data sheet for detailed service life information	10,000,000 operations min.	50,000,000 operations min.	50,000,000 (5A) 10,000,000 (0.1A)
<b>Electrical service life</b>	Refer to "SPECIFICATIONS" section of data sheet for detailed service life information	100,000 operations min. (D3V-16) 200,000 operations min. (D3V-11) 500,000 operations min. (D3V-6 / D3V-01)	100,000 operations min. (V-15G) 300,000 operations min. (V-10G)	500,000 (5A) 1,000,000 (0.1A)
<b>Mounting pitch mm (in)</b>	25.4 (1.0)	—	10.3 x 22.2 (0.41 x 0.87)	22.2
<b>Actuator types</b>	Pin plunger, slim spring plunger, short spring plunger, panel mount plunger, panel mount roller plunger, panel mount cross roller plunger, hinge lever, low force hinge lever, short hinge roller lever, hinge roller lever, unidirectional short hinge roller lever, spring plunger, flexible rod	Pin plunger, short hinge lever, hinge lever, long hinge lever, simulated roller lever, short hinge roller lever, hinge roller lever	Pin plunger, short hinge lever, hinge lever, long hinge lever, simulated roller lever, short hinge roller lever, hinge roller lever	Pin plunger, short hinge lever, hinge lever, long hinge lever, simulated roller lever, short hinge roller lever, hinge roller lever
<b>Terminal choices</b>	Solder, Screw	Solder/Quick connect (#187) Quick connect (#187) Quick connect (#250)	Solder/Quick connect (#187) Quick connect (#187), Quick connect (#250), Short solder, Screw	Solder, Quick-connect (#187)
<b>Approved standards</b>	UL, CSA, SEV	UL, CSA, VDE, SEMKO	UL, CSA, SEV, VDE, SEMKO, DENMARK	UL, CSA, VDE

\*Values are for pin plunger type only







# Switches - Snap Action

		<b>NEW!</b> 	<b>NEW!</b> 	
	<b>SS-P/SS</b>	<b>SSG</b>	<b>D3M</b>	<b>D2F</b>
<b>Dimensions mm (in)</b>	10.2 H x 6.4 D x 19.8 W (0.40 x 0.25 x 0.78)	10.2 H x 6.4 D x 19.8 W (0.40 x 0.25 x 0.78)	10 H x 7 D x 31.6 W (0.39 x 0.28 x 1.24)	6.5 H x 5.8 D x 12.8 W (0.26 x 0.23 x 0.50)
<b>Features</b>	<ul style="list-style-type: none"> <li>• Subminiature Snap Action Switch</li> <li>• SS-01: Switches microcurrent/ microvoltage load with crossbar contacts</li> <li>• SS-3: Single-leaf moveable spring</li> <li>• SS-5: Split double spring mechanism for a long life of up to 30 million operations</li> <li>• SS-10: Split double spring mechanism for a long life of up to 10 million operations</li> <li>• Internal lever options</li> </ul>	<ul style="list-style-type: none"> <li>• Subminiature Snap Action Switch</li> <li>• SS-01: Switches microcurrent/ microvoltage load with crossbar contacts</li> <li>• SS-5: Split double spring mechanism for a long life of up to 30 million operations</li> <li>• Wide operating temp. range of -25 to + 125°C</li> <li>• Internal lever options</li> <li>• Global switch conforming to EN, UL &amp; CSA</li> </ul>	<ul style="list-style-type: none"> <li>• External actuators</li> <li>• Easy wiring through connector terminals</li> </ul>	<ul style="list-style-type: none"> <li>• Subminiature Snap Action Switch</li> <li>• Switches microvoltage/ micro-current loads</li> <li>• Long lifespan assured by high-precision dual spring reverse-action mechanism</li> </ul>
<b>Contact Rating(s)</b>				
<b>Resistive load---</b>	0.1A @ 125VAC (SS-01) 3A @ 125VAC (SS-3) 5A @ 125VAC (SS-5) 10.1A @ 125/250VAC (SS-10)	3A @ 250VAC 0.1A @ 250VAC	0.1A @ 30VDC	0.1A @ 30VDC (D2F-01) 3A @ 125VAC (D2F) 1A @ 125VAC (D2F-F)
<b>Contact form</b>	SPDT (SPST-NC, SPST-NO per request)	SPDT, SPST-NO, SPST-NC	SPST-NC, SPST-NO	SPDT
<b>Operating force (OF)*</b>	25g, 50g, or 150g (SS-01) 150g (SS-3) 50g or 150g (SS-5) 150g (SS-10)	25g, 51g, 153g	153g	75g (D2F-01) 150g (D2F) 75g (D2F-F)
<b>Mechanical service life</b>	30,000,000 ops. min. (SS-01, SS-5)* 1,000,000 ops. min. (SS-01P, SS-3) 10,000,000 ops. min. (SS-10)*	10,000,000 operations min.	500,000 operations min.	1,000,000 operations min.
<b>Electrical service life</b>	200,000 operations min. (SS-01, SS-5)** 70,000 operations min. (SS-3) 50,000 operations min. (SS-10)**	200,000 operations min.	200,000 operations min.	30,000 operations min. (OT: full stroke)
<b>Mounting pitch mm (in)</b>	9.5 (0.37)	9.5	9.5	6.5 (0.26)
<b>Actuator types</b>	Pin plunger, hinge lever, simulated roller lever, formed hinge lever, hinge roller lever	Pin plunger, hinge lever, simulated roller lever, hinge roller lever	Pin plunger, hinge lever, hinge roller lever, simulated roller lever	Pin plunger, hinge lever, simulated roller lever, roller lever
<b>Terminal choices</b>	SS-01, SS-3, SS-5: PCB (straight, parallel left, parallel right), Solder, Quick connect SS-10: PCB (straight), Solder, Quick connect (#110)	Solder, quick-connect (#110), PCB	Dipole XA Connector	PCB (straight, self-supporting, right and left angle), Solder
<b>Approved standards</b>	UL, CSA, EN	UL, CSA, EN	UL, CSA	UL, CSA
* Values are for pin plunger type only	*at rated OT value **at rated load			



# Switches - Sealed Snap Action



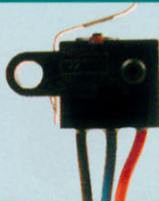
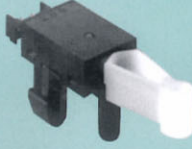
				
	<b>D2VW</b>	<b>D2RW</b>	<b>D2SW</b>	<b>D2SW-P</b>
<b>Dimensions mm (in)</b>	15.9 H x 10.3 D x 33 W (0.63 x 0.41 x 1.29)	15.9 H x 10.3 D x 35.9 W (0.63 x 0.41 x 1.41)	10.1 H x 6.4 D x 19.8 W (0.40 x 0.25 x 0.78)	7.7 H x 6.4 D x 19.8 W (0.30 x 0.25 x 0.78)
<b>Features</b>	<ul style="list-style-type: none"> <li>• Miniature Snap Action Switch</li> <li>• Sealed water-tight switch conforms to IP67 &amp; IP68</li> </ul>	<ul style="list-style-type: none"> <li>• Suitable for microloads to 1 million operations minimum</li> <li>• Internal Reed Switch sealed to IP67 ensures stable operation</li> <li>• Extended humidity operating range, up to 95% RH</li> <li>• Available with internally fitted levers</li> </ul>	<ul style="list-style-type: none"> <li>• Subminiature snap action switch</li> <li>• Small sealed switch conforms to IP67 &amp; IP68</li> </ul>	<ul style="list-style-type: none"> <li>• Sealed basic switch (IP67)</li> <li>• Single leaf movable spring construction</li> <li>• Microload versions available</li> </ul>
<b>Contact Rating(s)</b>				
<b>Resistive load</b>	0.1A @ 125VAC or 5A @125/250VAC	0.25A @ 100VDC	0.1A @ 125VAC or 3A @ 125VAC	2A @ 250VAC or 0.1A @ 125VAC
<b>Contact form</b>	SPDT (SPST-NC, SPST-NO per request)	SPST-NO	SPDT (SPST-NC, SPST-NO per request)	SPDT, SPST-NO, SPST-NC
<b>Operating force (OF)*</b>	200g	153g	180g	183g
<b>Mechanical service life</b>	10,000,000 operations min.	1,000,000 operations min.	5,000,000 operations min.	1,000,000 operations min.
<b>Electrical service life</b>	1,000,000 operations min. (0.1A, 125VAC) 100,000 operations min. (3A, 125/250VAC)	1,000,000 operations min.	200,000 operations min. (0.1 or 3A, 125VAC) 100,000 operations min. (2A, 250VAC)	50,000 (2 A) or 200,000 (0.1A) operations min.
<b>Mounting pitch mm (in)</b>	10.3 x 22.2 (0.41 x 0.87)	22.2mm	9.5 (0.37)	9.5mm
<b>Actuator types</b>	Pin plunger, short hinge lever, hinge lever, long hinge lever, simulated roller lever, short hinge roller lever, hinge roller lever	Pin plunger, hinge lever, hinge roller lever, simulated roller lever	Pin plunger, hinge lever, simulated roller lever, hinge roller lever	Pin plunger, hinge lever, hinge roller lever, simulated roller lever
<b>Terminal choices</b>	Solder/Quick connect (#187 tab terminals) lead wires	Molded lead wires	Solder, Quick connect (#110), PCB, lead wires	Solder, Quick connect (#110), PCB (even & uneven pitch), Molded lead wires
<b>Approved standards</b>	UL, CSA (refer to "Ratings" section of data sheet)	—	UL, CSA	UL, CSA

\* Values are for pin plunger type only

\*\*IP68 Ratings are based on specific application environments and conditions, per IEC 529. Test conditions for Grade 8 pertaining to continuous immersion are subject to prior agreement between Omron and the user. Acceptance of the test requirements and the ratings may or may not occur, solely based on the specific conditions of each application. Consult Omron for consideration of specific usage conditions.



# Switches - Snap Action

	<div> <div>NEW!</div>     </div>			
	<b>D2HW</b>	<b>D2JW</b>	<b>D2FW-G</b>	<b>D2X</b>
<b>Dimensions mm (in)</b>	7 H x 5.3 D x 13.3/18.5 W (0.28 x 0.21 x 0.52/0.73)	9.4 H x 5.3 D x 12.7 W (0.37 x 0.21 x 0.50)	13.5 H x 8.0 D x 23.5 W (0.53 x 0.31 x 0.93)	28.1 H x 8.4 D x 5.3 W (1.11 x 0.33 x 0.21)
<b>Features</b>	<ul style="list-style-type: none"> <li>• Subminiature Snap Action Switch</li> <li>• Small sealed switch with long stroke for reliable ON/OFF action</li> <li>• Conforms to IP67</li> </ul>	<ul style="list-style-type: none"> <li>• Small size</li> <li>• Gold crossbar contact and coil-spring for long life</li> <li>• IP67 rating for molded lead wire versions</li> </ul>	<ul style="list-style-type: none"> <li>• Subminiature Snap Action Switch</li> <li>• Small sealed switch with lead wires</li> <li>• Conforms to IP67</li> </ul>	<ul style="list-style-type: none"> <li>• High contact force</li> <li>• Wiping action for greater contact reliability</li> </ul>
<b>Contact Rating(s)</b>				
<b>Resistive load</b>	2A @ 12VDC/ 1A @ 24VDC/ 0.5A @ 42VDC	0.1A @ 30VDC	0.5A @ 30VDC or 50mA @ 30VDC	0.1A @ 30VDC
<b>Contact form</b>	SPDT, SPST-NC, SPST-NO	SPDT	SPDT, SPST-NC, SPST-NO	SPST-NC
<b>Operating force (OF)*</b>	76g	250g	120g	50g
<b>Mechanical service life</b>	1,000,000 operations min.	1,000,000 operations min.	300,000 operations min.	1,000,000 operations min.
<b>Electrical service life</b>	100,000 operations min.	500,000 operations min.	100,000 operations min.	50,000 operations min.
<b>Mounting pitch mm (in)</b>	8 (0.32) posts, 13 (0.51) screw	4.8	16 (0.63)	12.2
<b>Actuator types</b>	Pin plunger, hinge lever, long hinge lever, simulated roller lever, leaf lever, simulated leaf lever, long leaf lever	Pin plunger, short hinge lever, hinge lever, simulated roller lever, hinge roller lever	Leaf lever, Long leaf lever	Bi-directional paddle
<b>Terminal choices</b>	PCB (straight, angled), Solder, Lead wire (bottom, right side, left side)	Solder, molded lead wire	Lead wires	Crimp connector
<b>Approved standards</b>	—	UL, CSA, VDE	—	—
<b>* Values are for pin plunger type only</b>				




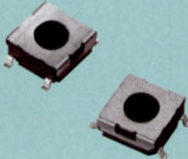
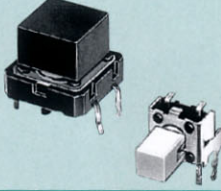
# Switches - Snap Action

		<b>NEW!</b> 	<b>NEW!</b> 	
	<b>D3C</b>	<b>D3K</b>	<b>D3D</b>	<b>D2T</b>
<b>Dimensions mm (in)</b>	6 H x 4.2 D x 8 W (0.24 x 0.17 x 0.31)	13.7 H x 5.6 D x 18.9 W (0.54 x 0.22 x 0.74)	30.7 H x 15 D x 36.4 W (1.21 x 0.59 x 1.43)	24.65 H x 11.5 D x 28.8 W (0.97 x 0.45 x 1.13)
<b>Features</b>	<ul style="list-style-type: none"> <li>• Low torque built-in slide mechanism for selecting shorting or non-shortng timing</li> </ul>	<ul style="list-style-type: none"> <li>• Very low operating force</li> <li>• Detects cards &amp; paper sheet</li> </ul>	<ul style="list-style-type: none"> <li>• Miniature door switch</li> <li>• Low-noise</li> <li>• Disconnectable crimp connector</li> <li>• Gold crossbar contacts</li> </ul>	<ul style="list-style-type: none"> <li>• Compact door switch</li> <li>• Incorporates two circuits for power loads &amp; micro loads</li> </ul>
<b>Contact Rating(s)</b>				
<b>Resistive load</b>	0.1A @ 30VDC	10mA @ 12VDC	1A @ 125VAC or 0.5A @ 250VAC	5A @ 250VAC 0.1A @ 25VAC
<b>Contact form</b>	SPDT	SPST-NO	SPDT, SPST-NC, SPST-NO	DPST-NO
<b>Operating force (OF)*</b>	40g, 130g	3g	204g	330g
<b>Mechanical service life</b>	50,000 operations min.	2,000,000 operations min.	300,000 operations min.	100,000 operations min.
<b>Electrical service life</b>	50,000 operations min.	2,000,000 operations min.	100,000 operations min.	100,000 operations min.
<b>Mounting pitch mm (in)</b>	5.7	17.3	Panel-mount	26.4
<b>Actuator types</b>	Rotary lever	Paddle lever	Pin plunger, lever	Pin plunger, hinge lever
<b>Terminal choices</b>	PCB	Connector	Connector	Solder
<b>Approved standards</b>	—	—	UL, CSA	UL, CSA, VDE, SEMKO

\* Values are for pin plunger type only




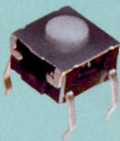


# Switches - Tactile

			
	<b>B3F</b>	<b>B3FS</b>	<b>B32</b>
<b>Dimensions mm (in)</b>	Varies by type	Varies by type	Various
<b>Features</b>	<ul style="list-style-type: none"> <li>• Tactile 6 mm/12 mm Square Switch</li> <li>• Space saving switch with extended mechanical/electrical service life</li> <li>• Taped radial packaging available*</li> </ul>	<ul style="list-style-type: none"> <li>• Tape &amp; Reel Surface Mount Switches</li> <li>• Tactile switch that incorporates a snap action contact mechanism which ensures sharp switching operations</li> </ul>	<ul style="list-style-type: none"> <li>• Key tops for projected-plunger B3F and B3W tactile switches</li> <li>• Available in a wide range of colors and sizes</li> </ul>
<b>Contact Rating(s)</b>			
<b>Resistive load</b>	50mA @ 24 VDC	50mA @ 24 VDC	
<b>Contact form</b>	SPST-NO	SPST-NO	
<b>Action</b>	Momentary	Momentary	
<b>Ground terminal</b>	Models available with or without ground terminal	None	
<b>Keycap (optional)</b>	Refer to "ACCESSORIES" section of data sheet for Keycap information	None	
<b>Operating force (OF)*</b>	Refer to "OPERATING CHARACTERISTICS" section of data sheet	100gf (General purpose) 150gf (High force)	
<b>Service life (Mechanical/Electrical)</b>	B3F-1 □□□□ /3□□□□ 1,000,000 operations min. (High force: 300,000 operations min.) B3F-4 □□□□ 3,000,000 operations min. (High force: 300,000 operations min.) B3F-5 □□□□ 10,000,000 operations min. B3F-6 □□□□ 1,000,000 operations min. (High force: 300,000 operations min.)	1,000,000 operations min. (General purpose) 300,000 operations min. (High force)	
<b>Actuator type</b>	Plunger	Plunger	
<b>Terminal choices</b>	PCB	Surface mount	
<b>Cleaning</b>	Not possible	Not possible	N/A

IMPORTANT NOTE: None of the Tactile switch models listed within this catalog are water-washable.

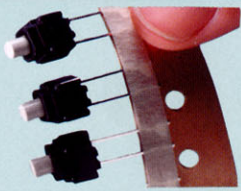





# Switches - Tactile

				
	<b>B3M</b>	<b>B3W</b>	<b>B3S</b>	<b>B3SN</b>
<b>Dimensions mm (in)</b>	7.3 H x 6.0 D x 6.0 W (0.29 x 0.24 x 0.24)	Varies by type	4.3 H x 6.0 D x 6.0 W (0.17 x 0.24 x 0.24)	3.1 H x 6.5 D x 7.0 W (0.12 x 0.26 x 0.28)
<b>Features</b>	<ul style="list-style-type: none"> <li>• High Profile Tactile Switch</li> <li>• Stroke length of 0.85mm</li> <li>• Light touch with a minimum overstroke of 0.25mm</li> </ul>	<ul style="list-style-type: none"> <li>• 6 mm/12 mm Square Tactile Switch</li> <li>• Sealed Construction allows immersion cleaning with Alcohol based solution</li> </ul>	<ul style="list-style-type: none"> <li>• Surface Mount Tactile Switch</li> <li>• Sealed Construction allows immersion cleaning with Alcohol based solution</li> </ul>	<ul style="list-style-type: none"> <li>• Surface Mount Tactile Switch</li> <li>• Low profile sealed construction for dust or humid environments</li> <li>• Available in bulk or tape packaging</li> </ul>
<b>Service life (Mechanical/Electrical)</b>	2,000,000 operations min.	B3W-1 □□□ Standard force: 1,000,000 operations min. High-force: 300,000 operations min. B3W-4 □□□ Standard force: 3,000,000 operations min. High force: 1,000,000 operations min.	500,000 operations min. (General purpose) 300,000 operations min. (High force)	50,000 operations min.
<b>Contact Rating(s)</b>				
<b>Resistive load</b>	50mA @ 12VDC	50mA @ 24VDC	50mA @ 24VDC	1 to 30mA @ 5 to 24VDC
<b>Contact form</b>	SPST-NO	SPST-NO	SPST-NO	SPST-NO
<b>Action</b>	Momentary	Momentary	Momentary	Momentary
<b>Ground terminal</b>	None	Models available with or without ground terminal	Models available with or without ground terminal	Models available with or without ground terminal
<b>Keycap (Optional)</b>	Built in	Refer to "ACCESSORIES" section of data sheet for Keycap information	None	None
<b>Operating force (OF)*</b>	70 ±20gf	Refer to "OPERATING" CHARACTERISTICS" section of datasheet	160gf (General purpose) 230gf (High force)	160 ±50g max.
<b>Actuator type</b>	Plunger	Plunger	Plunger	Plunger
<b>Terminal choices</b>	PCB	PCB	Surface mount	Surface mount
<b>Cleaning</b>	Not possible	Possible	Possible	Possible



# Switches - Tactile

				
	<b>B3WN</b>	<b>B3J</b>	<b>B3D</b>	<b>B3DA</b>
<b>Dimensions mm (in)</b>	13 H x 8.0 D x 8.0 W (0.51 x 0.31 x 0.31)	10.3 H x 18.0 D x 12.0 W (0.41 x 0.71 x 0.47)	4 mm or 5 mm domes	4 mm or 5 mm domes
<b>Features</b>	<ul style="list-style-type: none"> <li>• Radial Tape Sealed Tactile Switch</li> <li>• Compact 8 x 8 mm square size with double sealing construction</li> <li>• Assures water-tight/dust-tight protection</li> </ul>	<ul style="list-style-type: none"> <li>• Hinged Tactile Switch</li> <li>• Available with 1, 2 or no LED's</li> </ul>	<ul style="list-style-type: none"> <li>• Adhesive-backed individual dome</li> <li>• Superior dust-tight performance</li> <li>• No soldering required</li> </ul>	<ul style="list-style-type: none"> <li>• Adhesive-backed individual array</li> <li>• Superior dust-tight performance</li> <li>• No soldering required</li> </ul>
<b>Service life (Mechanical/Electrical)</b>	100,000 operations min.	3,000,000 operations min.	500,000 (4 mm) / 1,000,000 (5 mm)	500,000 (4 mm) / 1,000,000 (5 mm)
<b>Contact Rating(s)</b>				
<b>Resistive load</b>	50mA @ 12VDC	1 to 50mA @ 5 to 24VDC	10mA @ 12VDC	—
<b>Contact form</b>	SPST-NO	SPST-NO	N/A	N/A
<b>Action</b>	Momentary	Momentary	Momentary	Momentary
<b>Ground terminal</b>	None	None	None	None
<b>Keycap (Optional)</b>	None	None	None	None
<b>Operating force (OF)*</b>	200 ±70gf	130 ±50gf	170g	160g
<b>Actuator type</b>	Plunger	Hinge lever	Dome	Dome
<b>Terminal choices</b>	PCB	PCB	Surface mount	Surface mount
<b>Cleaning</b>	Possible	Not possible	Not possible	Not possible



# Touch Sensing ICs - 4 & 8 Channel

## B6TS-04LT-000 4-Channel SSOP-20 Package B6TS-08NF-000 8-Channel QFP-32 Package

### Overview

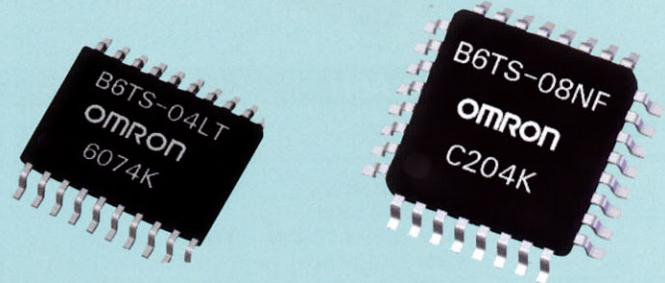
The B6TS series touch sensing IC measures the floating capacitance of the touch electrode connected to the measurement terminal. As shown in Fig.1, there exist electrostatic capacitances between the electrode and the surrounding electric conductors. Because the human body is an electrical conductor, when a finger is placed close to the electrode, the value of the loop capacitance increases. The B6TS detects the increase in loop capacitance, to determine whether the electrode is being touched or not.

### Features:

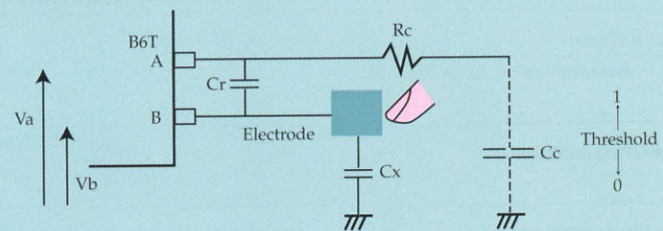
- Easy Embedding
- Fast Development Process
- High Noise Immunity
- Flexible Electrode Size, Thickness & Material
- Automatic Drift Compensation
- Supporting Design Tools

### Applications

- Dish Washer
- Washing Machine
- Oven
- Elevator Door Panel
- Television
- Fitness Equipment
- HVAC Controls
- Light Stand
- Room Light
- Medical Products
- ATMs
- Gasoline Pumps
- Mobile Phone
- Vending Machine
- Portable Audio
- PDA



### Detector Circuit



### Principle of Detection

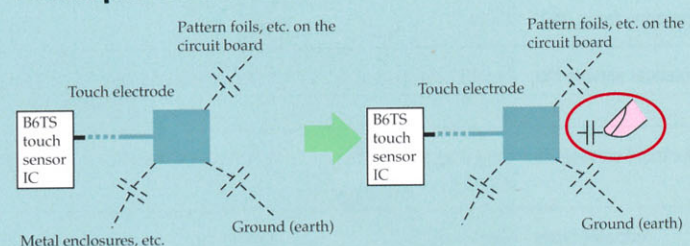


Fig.1 Increased floating capacitance due to the presence of a finger

Design support tools are available, from OMRON (B6T Workbench Board and Software).

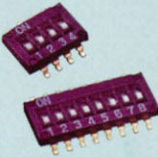
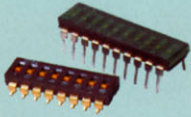
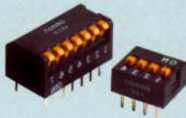
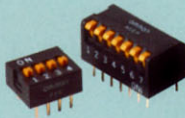
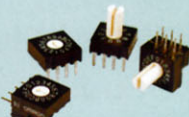
### Recommended operating conditions

Designation	Item	Rated value			Unit
		Minimum	Standard	Maximum	
$V_{dd}$	Supply voltage B6T 4-Channel	3.0		5.5	V
$V_{dd}$	Supply voltage B6T 8-Channel	4.5		5.5	
$V_{IH}$	High input voltage	0.8V <sub>dd</sub>		V <sub>dd</sub>	V
$V_{IL}$	Low input voltage	0		0.2V <sub>dd</sub>	V
$I_{OH}$	High output voltage			-5	mA
$I_{OL}$	Low output voltage			5	mA

\* 12 - Channel available in Fall of 2006



# Switches - DIP

					
	<b>A6H</b>	<b>A6T/A6S</b>	<b>A6D/A6DR</b>	<b>A6E/A6ER</b>	<b>A6R/A6RV</b>
<b>Dimensions mm (in)</b>	Varies by type	Varies by type	Varies by type	Varies by type	Varies by type
<b>Features</b>	<ul style="list-style-type: none"> <li>• Half-pitch Surface Mount DIP Switch</li> <li>• Low profile of 1.55mm</li> <li>• Seal tape models available</li> </ul>	<ul style="list-style-type: none"> <li>• Straight PCB/ Surface Mount DIP Switch</li> <li>• Flat actuated types with or without seal tape, &amp; tape seal versions in embossed tape packaging</li> <li>• Raised actuator types also available</li> </ul>	<ul style="list-style-type: none"> <li>• Dustproof construction</li> <li>• Top, raised &amp; side actuators</li> <li>• Smooth switching action</li> </ul>	<ul style="list-style-type: none"> <li>• Available in a variety of model types: A6E: Flat/Raised actuator A6ER: Side actuator</li> </ul>	<ul style="list-style-type: none"> <li>• Economical rotary DIP switch</li> <li>• Top, side &amp; extended shaft models</li> <li>• O-ring sealed construction to prevent ingress of dust and dirt</li> </ul>
<b>Contact Rating(s)</b>					
<b>Resistive load</b>	25mA @ 24VDC	25mA @ 24VDC	30mA @ 30VDC	25mA @ 24VDC	25mA @ 24VDC
<b>Switching positions</b>	—	—	—	—	10-BCD 16-Hexadecimal
<b>Number of poles</b>	4, 8	A6T: 1, 2, 4, 6, 8, 10 A6S: 2, 3, 4, 5, 6, 7, 8, 9, 10 A6S (embossed tape): 4, 6, 8	4, 6, 8, 10	2, 3, 4, 5, 6, 7, 8, 9, 10	—
<b>Operating force (OF)*</b>	30gf	30gf	500gf	30gf	200g-cm max.
<b>Mechanical service life,</b>	1,000 operations min.	1,000 operations min.	5,000 operations min.	1,000 operations min.	5,000 detent operations min.
<b>Electrical service life</b>	1,000 operations min.	1,000 operations min.	2,000 operations min.	1,000 operations min.	5,000 detent operations min.
<b>Actuator types</b>	Top	Top, raised	Top, raised, side	Top, raised, side	Rotary
<b>Terminal choices</b>	Surface mount	PCB terminal; Surface mount	PCB terminal	PCB terminal	PCB terminal
<b>Washable</b>	Yes (seal tape only)	Yes (seal tape only)	Yes	No	No



## Switches - DIP



A6C

[illegible]



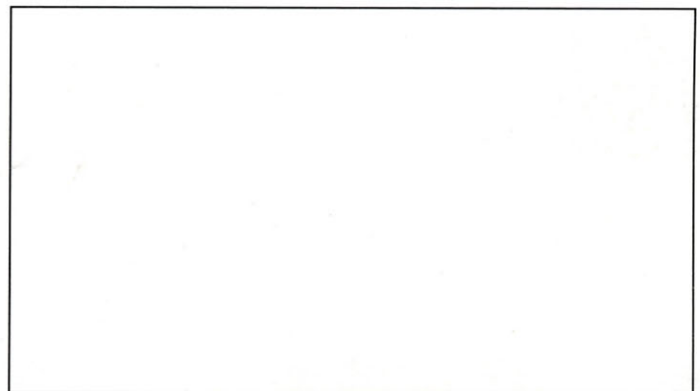
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