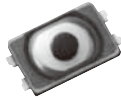
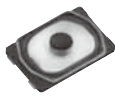
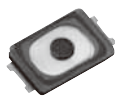
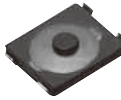
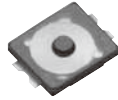
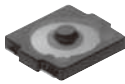
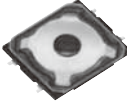
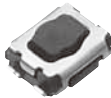
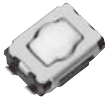


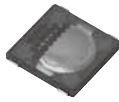
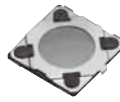
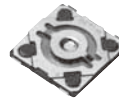
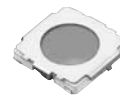
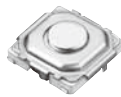
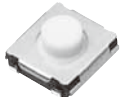
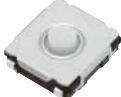







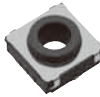

# Light Touch Switches Selector Chart






Types		Top push type SMD				
Product name		2.6mm×1.6mm SMD	2.8mm×1.9mm SMD	3.0mm×2.0mm SMD	3.0mm×2.6mm SMD	3.0mm×2.6mm 2 terminals SMD
part No.		EVPBB	EVPBL	EVPAW	EVPAF/EVP0A	EVPBA
shape						
features		Low profile and Small size				
Vehicle compatible		—	—	—	—	—
IP		IP67	IP67	IP67	—	—
External dimensions (mm)	W	2.6	2.8	3.0	3.0	3.0
	D	1.6	1.9	2.0	2.6	2.6
	H	0.5/0.53/0.55	0.53/0.57	0.6	0.65/0.7	0.58
Operating Force	0.5N					
	0.6N					
	0.7N	●				
	1.0N	●				
	1.3N				●	
	1.6N	●	●	●	●	
	1.8N					●
	2.0N					
	2.2N					
	2.25N		●			
	2.4N	●		●	●	
	2.5N					
	2.6N					
	3.0N					
	3.3N			●		
	3.4N				●	
3.5N						
4.0N						
5.0N						
7.0N						
Travel (mm)		0.7N, 1.0N : 0.08 1.6N, 2.4N : 0.11	0.15	1.6N, 2.4N : 0.13 3.3N : 0.15	0.15	0.13
Operating Life (cycles min)		500,000	300,000	1.6N, 2.4N : 500,000 3.3N : 300,000	1.3N, 1.6N, 3.4N : 100,000 1.6N (Low profile), 2.4N : 500,000	300,000
ground terminal		Without				
Rating		10μA 2V DC to 20mA 15V DC (Resistive load)				
Temperature	Operating Temperature	-40°C to +85°C				
	Storage Temperature (Taping)	-20°C to +60°C				
Electrical	Contact Resistance	500mΩ max.				
	Insulation Resistance	50MΩ min. (at 100V DC)				
	Dielectric Withstanding Voltage	250V AC for 1 minute				
	Bouncing	10ms max. (ON, OFF)				
environment		RoHS compliant, ELV compliant				





Types		Top push type SMD				
Product name		3.4mm×2.9mm SMD	4.9mm×4.0mm SMD	3.5mm×2.9mm SMD	4.7mm×3.5mm SMD	
part No.		EVPAY	EVPBK	EVPA A	EVQP2/EVQP9/EVQ3P2	
shape						
features		Low profile and Small size	Achieved long operation travel 0.23mm with low profile package 0.63mm	High operating force	High operating force and Long operational life	High operating force and Long operational life middle push Travel
Vehicle compatible		—	—	●	●	●
IP		IP67	IP67	—	—	—
External dimensions (mm)	W	3.4	4.9	3.5	4.7	4.7
	D	2.9	4.0	2.9	3.5	3.5
	H	0.7	0.63	1.7	2.1/2.5	2.5
Operating Force	0.5N					
	0.6N					
	1.0N			●	●	
	1.3N					
	1.6N	●		●	●	
	1.8N					
	2.0N					
	2.2N					
	2.25N					
	2.4N	●		●	●	
	2.5N		●			●
	2.6N					
	3.0N					
	3.3N					
	3.4N					
3.5N			●	●	●	
4.0N				●		
5.0N			●	●	●	
7.0N			●			
Travel (mm)		0.15	0.23	0.15	0.25	0.7
Operating Life (cycles min)		500,000	1,000,000	1.0N : 1,000,000 3.5N : 500,000 1.6N, 2.4N, 3.5N : 200,000 5.0N, 7.0N : 100,000	1.0N, 1.6N : 1,000,000 2.4N : 500,000 3.5N, 4.0N, 5.0N : 200,000	2.5N : 1,000,000 3.5N : 500,000 5.0N : 200,000
ground terminal		Without	Without	With	With	With
Rating		10μA 2V DC to 20mA 15V DC (Resistive load)				
Temperature	Operating Temperature	-40°C to +85°C				
	Storage Temperature (Taping)	-20°C to +60°C				
Electrical	Contact Resistance	500mΩ max.		100mΩ max.		
	Insulation Resistance	50MΩ min. (at 100V DC)		100MΩ min. (at 100V DC)		
	Dielectric Withstanding Voltage	250V AC for 1 minute				
	Bouncing	10ms max. (ON, OFF)				
environment		RoHS compliant, ELV compliant				

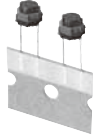


Types		Top push type SMD				
Product name		6.0mm×3.5mm SMD	4mm Square SMD			4.9mm Square SMD
part No.		EVQPE1/EVQPN EVQ5P	EVQP6	EVQ7P6/EVQ6P6/ EVQ9P6	EVQP6	EVQPL/EVQ5PL
shape						
features		Surface mount type	Low profile and wide range			Low profile and Long operational life
Vehicle compatible		—	—	—	—	●
IP		—	—	—	—	—
External dimensions (mm)	W	6.0	4.1	4.1	4.1	4.9
	D	3.5	4.1	4.1	4.1	4.9
	H	4.3/5.0	0.35	0.43	0.58	0.8
Operating Force	0.5N					
	0.6N					
	1.0N	●		●		●
	1.3N					
	1.6N	●	●	●	●	●
	1.8N					
	2.0N					
	2.2N					
	2.25N					
	2.4N	●	●	●	●	
	2.5N					
	2.6N					●
	3.0N					
	3.3N					
	3.4N					
3.5N					●	
4.0N						
5.0N						
7.0N						
Travel (mm)		0.25	0.2	1.0N : 0.15 1.6N, 2.4N : 0.2	0.2	0.25
Operating Life (cycles min)		1.0N, 1.6N : 50,000 2.4N : 30,000	1.6N : 1,000,000 2.4N : 500,000	1.0N, 1.6N : 1,000,000 2.4N : 500,000	1.6N : 1,000,000 2.4N : 500,000	1.0N, 1.6N : 500,000 2.6N, 3.5N : 200,000
ground terminal		Without	without	with	without	with
Rating		10μA 2V DC to 50mA 12V DC (Resistive load)	10μA 2V DC to 20mA 15V DC (Resistive load)			
Temperature	Operating Temperature	-30°C to +85°C	-20°C to +70°C			
	Storage Temperature (Taping)	-20°C to +60°C				
Electrical	Contact Resistance	100mΩ max.	500mΩ max.			50mΩ max.
	Insulation Resistance	100MΩ min. (at 100V DC)	50MΩ min. (at 100V DC)			
	Dielectric Withstanding Voltage	250V AC for 1 minute	100V AC for 1 minute			250V AC for 1 minute
	Bouncing	10ms max. (ON, OFF)	3ms max. (ON)/10ms max. (OFF)			3ms max. (ON)/8ms max. (OFF)
environment		RoHS compliant, ELV compliant				

Types		Top push type SMD				
Product name		4.9mm Square SMD	6mm Square SMD		6mm Square Middle Travel SMD	6mm Square Middle Travel 2 terminals SMD
part No.		EVQPL/EVQPT/ EVQ3PL	EVQQ2	EVQP0	EVPBF	EVPBD
shape						
features		Low profile and Long operational life	Long operational life	over travel function available	Long operational life	Middle travel feeling
Vehicle compatible		●	●	—	—	●
IP		—	—	—	—	—
External dimensions (mm)	W	4.9	6.5	6.5	6.0	6.0
	D	4.9	6.0	6.0	6.0	6.0
	H	1.5	2.0/2.5/3.1	2.5	3.5	4.0
Operating Force	0.5N		●			
	0.6N			●		
	1.0N	●	●	●		
	1.3N		●			
	1.6N	●	●			
	1.8N					
	2.0N				●	
	2.2N					
	2.25N					
	2.4N					
	2.5N					
	2.6N	●	●			
	3.0N					
	3.3N					
	3.4N					
3.5N	●	●			●	
4.0N						
5.0N						
7.0N						
Travel (mm)		0.25	0.5N, 1.0N : 0.20 1.3N, 1.6N, 2.6N, 3.5N : 0.25	0.3	0.25	0.75
Operating Life (cycles min)		1.0N, 1.6N : 500,000 2.6N, 3.5N : 200,000	0.5N : 2,000,000 1.0N, 1.3N, 1.6N : 1,000,000 2.6N : 200,000 3.5N : 100,000	0.6N : 2,000,000 1.0N : 1,000,000	1,000,000	100,000
ground terminal		with	with	with	without	without
Rating		10 μA 2V DC to 20mA 15V DC (Resistive load)				
Temperature	Operating Temperature	-20°C to +70°C		-40°C to +85°C		-40°C to +90°C
	Storage Temperature (Taping)	-20°C to +60°C				
Electrical	Contact Resistance	50mΩ max.	100mΩ max.		500mΩ max.	
	Insulation Resistance	50MΩ min. (at 100V DC)	100MΩ min. (at 100V DC)			
	Dielectric Withstanding Voltage	250V AC for 1 minute				
	Bouncing	3ms max. (ON) / 8ms max. (OFF)	10ms max. (ON, OFF)			
environment		RoHS compliant, ELV compliant				

Types		Top push type SMD				Side push type SMD
Product name		6mm Square Long Travel SMD	6mm Square Long Travel 2 terminals SMD	8mm Square Long Travel SMD	10mm Square Center Space Long Travel SMD	2.8mm×2.3mm Side-operational Edge Mount SMD
part No.		EVQP0/EVQP1/EVQ9P	EVPAS	EVQQ1	EVPAD	EVPAV
shape						
features		Long travel type	Long travel type	Long travel type high operating force	Center space structure, Long travel type high operating force	Low profile
Vehicle compatible		●	●	●	●	—
IP		—	—	—	—	—
External dimensions (mm)	W	6.1	6.1	8.5	9.8	2.8
	D	6.0	6.0	8.5	9.8	2.3
	H	5.0	5.0	6.5	4.7	1.95
Operating Force	0.5N					
	0.6N					
	1.0N					
	1.3N					
	1.6N	●	●			●
	1.8N					
	2.0N	●	●			
	2.2N	●	●			
	2.25N					
	2.4N					
	2.5N	●	●			
	2.6N					
	3.0N	●	● (Standard/Narrow tolerance)			
	3.3N					
	3.4N					
3.5N	●	●				
4.0N			●	●		
5.0N			●			
7.0N						
Travel (mm)		2.2N, 2.5N : 1.0 1.6N, 2.0N, 2.5N, 3.0N, 3.5N : 1.3	2.2N, 2.5N : 1.0 1.6N, 2.0N, 2.5N, 3.0N, 3.5N : 1.3	1.0		0.13
Operating Life (cycles min)		1.6N, 2.0N, 2.2N, 2.5N, 3.0N : 100,000 3.5N : 30,000	1.6N, 2.0N, 2.2N, 2.5N, 3.0N : 100,000 3.5N : 30,000 Long life type 3.0N : 200,000 Long life type 3.5N : 100,000 Operating force Narrow tolerance 3.0N : 200,000	100,000		300,000
ground terminal		without				
Rating		10 μA 2V DC to 50mA 12V DC (Resistive load)				10 μA 2V DC to 20mA 15V DC (Resistive load)
Temperature	Operating Temperature	-40°C to +85°C	-40°C to +90°C	-40°C to +85°C		
	Storage Temperature (Taping)	-20°C to +60°C				
Electrical	Contact Resistance	100mΩ max.				500mΩ max.
	Insulation Resistance	100MΩ min. (at 100V DC)				50MΩ min. (at 100V DC)
	Dielectric Withstanding Voltage	250V AC for 1 minute				
	Bouncing	10ms max. (ON, OFF)				
environment		RoHS compliant, ELV compliant				

Types		Side push type SMD				
Product name		3.4mm×1.7mm Side-operational Edge Mount SMD	3.5mm×2.9mm Side-operational SMD	3.5mm×2.9mm Side-operational Half Dive SMD	3.8mm×1.9mm Side-operational SMD	4.5mm×2.2mm Side-operational Edge Mount
part No.		EVPAT	EVQP7/EVQP3/EVQ9P7	EVPAN	EVPAK	EVPAE
shape						
features		Low profile		Low profile Half Dive	High soldering strength in operating direction	Edge Mount, High soldering strength in operating direction
Vehicle compatible		—	—	—	—	●
IP		IP67	—	—	IP67	—
External dimensions (mm)	W	3.4	3.5	3.5	3.9	4.5
	D	1.73	2.9	2.9	2.05	2.25
	H	1.65	1.35	1.2	1.6	2.9
Operating Force	0.5N					
	0.6N					
	1.0N					
	1.3N					
	1.6N	●	●	●	●	●
	1.8N					
	2.0N					
	2.2N		●	●		
	2.25N					
	2.4N	●				●
	2.5N					
	2.6N					
	3.0N					●
	3.3N					
	3.4N					
3.5N					●	
4.0N						
5.0N						
7.0N						
Travel (mm)		0.11	0.2		0.12	With L-shape terminals : 0.13 1.6N, 3.0N, 3.5N : 0.15
Operating Life (cycles min)		500,000	100,000		500,000	200,000
ground terminal		with	with	without	with	with
Rating		10 μA 2V DC to 20mA 15V DC (Resistive load)	10 μA 2V DC to 50mA 12V DC (Resistive load)		10 μA 2V DC to 20mA 15V DC (Resistive load)	
Temperature	Operating Temperature	-40°C to +85°C	-20°C to +70°C		-40°C to +85°C	
	Storage Temperature (Taping)	-20°C to +60°C				
Electrical	Contact Resistance	500mΩ max.			100mΩ max.	1,000mΩ max.
	Insulation Resistance	50MΩ min. (at 100V DC)	100MΩ min. (at 100V DC)			
	Dielectric Withstanding Voltage	250V AC for 1 minute				
	Bouncing	10ms max. (ON, OFF)				
environment		RoHS compliant, ELV compliant				

Types		Side push type SMD			Double-action
Product name		Small-sized Side-operational SMD	6.2mm×2.5mm Side-operational Edge Mount SMD		3.0mm×2.6mm Double-action SMD
part No.		EVQPU	EVQP4		EVPAX
shape					
features		Low profile	Edge mount High mount ability	Middle push travel, Edge mount High mount ability	Double-action
Vehicle compatible		—	●	●	—
IP		—	—	—	—
External dimensions (mm)	W	4.7	6.2	6.2	3.0
	D	3.5	2.55	2.55	2.6
	H	1.65	3.5	3.5	0.7
Operating Force	0.5N				
	0.6N				
	1.0N		●		
	1.3N				
	1.6N	●	●		
	1.8N				
	2.0N				1st Action : 0.7N/ 2nd Action : 2.0N
	2.2N	●			
	2.25N				
	2.4N		●		
	2.5N			●	
	2.6N				
	3.0N				
	3.3N				
	3.4N				
3.5N		●	●		
4.0N					
5.0N			●		
7.0N					
Travel (mm)		0.3	0.25	0.7	1st Action : 0.07 2nd Action : 0.16
Operating Life (cycles min)		100,000	1.0N, 1.6N : 1,000,000 2.4N : 500,000 3.5N : 200,000	2.5N : 1,000,000 3.5N : 500,000 5.0N : 200,000	100,000
ground terminal		without	with	with	without
Rating		10 μA 2V DC to 50mA 12V DC (Resistive load)	10 μA 2V DC to 20mA 15V DC (Resistive load)		
Temperature	Operating Temperature	-20°C to +70°C	-40°C to +85°C		-20°C to +70°C
	Storage Temperature (Taping)	-20°C to +60°C			
Electrical	Contact Resistance	500mΩ max.	100mΩ max.		500mΩ max.
	Insulation Resistance	100MΩ min. (at 100V DC)			
	Dielectric Withstanding Voltage	250V AC for 1 minute			
	Bouncing	10ms max. (ON, OFF)			3ms max. (ON) 20ms max. (OFF)
environment		RoHS compliant, ELV compliant			

Types		Radial	Bulk	
Product name		6mm Square Long Travel 2R	6.0mm×3.5mm	Over Travel
part No.		EVQPV	EVQPE	EVQP0
shape				
features		High mountability, section terminals	main body prevents the escape of flux.	Over Travel type
Vehicle compatible		●	—	—
IP		—	—	—
External dimensions (mm)	W	6.0	6.0	6.2
	D	6.1	3.5	6.2
	H	5.0	4.3/5.0	7.45
Operating Force	0.5N			
	0.6N			0.74N ●
	1.0N		●	
	1.3N			●
	1.6N	●	●	
	1.8N			
	2.0N	●		
	2.2N	●		
	2.25N			
	2.4N		●	
	2.5N	●		
	2.6N			
	3.0N			
	3.3N			
	3.4N			
3.5N	●			
4.0N				
5.0N				
7.0N				
Travel (mm)		2.2N : 1.0 1.6N, 2.0N, 2.5N, 3.5N : 1.3	0.25	0.2
Operating Life (cycles min)		1.6N, 2.0N, 2.2N, 2.5N : 100,000 3.5N : 30,000	1.0N, 1.6N : 50,000 2.4N : 30,000	0.74N : 5,000,000 1.3N : 1,000,000
ground terminal		without	without	
Rating		10 μA 2V DC to 50mA 12V DC (Resistive load)	10 μA 2V DC to 50mA 12V DC (Resistive load)	10 μA 2V DC to 50mA 30V DC (Resistive load)
Temperature	Operating Temperature	-30°C to +85°C	-30°C to +85°C	-25°C to +65°C
	Storage Temperature (Taping)	-20°C to +40°C	-40°C to +85°C	-45°C to +85°C
Electrical	Contact Resistance	100mΩ max.	100mΩ max.	100mΩ max. (1Ω max. after life test)
	Insulation Resistance	100MΩ min. (at 100V DC)	100MΩ min. (at 100V DC)	
	Dielectric Withstanding Voltage	250V AC for 1 minute	250V AC for 1 minute	600V AC for 1 minute
	Bouncing	10ms max. (ON, OFF)	10ms max. (ON, OFF)	3ms max. (ON) 8ms max. (OFF)
environment		RoHS compliant, ELV compliant		



## Guidelines and cautions for using the product technical information and the products displayed on this material

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- When using our products in equipment that requires a high degree of reliability, regardless of the application, it is recommended that you use protection circuits and redundancy circuits for equipment safety and test for safety.
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### Safety Precautions

When using our products, no matter what sort of equipment they might be used for, be sure to confirm the applications and environmental conditions with our specifications in advance.

Please contact .....

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