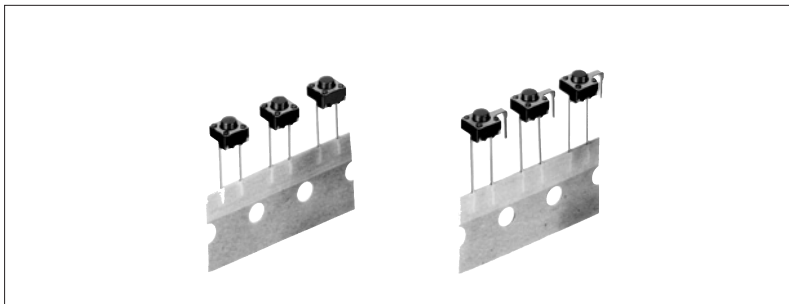


6.0 × 6.0mm TACT Switch (Radial)

SKHV Series

Advantage in excellent mounting efficiency. Ground terminal version is also available.

- Power
- Push
- Slide
- Rotary
- Encoders
- Jog Shuttle
- Telephone-hook
- Detector
- Vibration Sensors
- Dual-in-line Package Type
- Multi Control Devices
- TACT**
- Sharp Feeling
- Soft Feeling
- Snap-in Type
- Surface Mount Type
- Radial Type



Car Use

Features

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

Applications

- For operating various electronic devices such as audio devices, office equipment, communication devices, TVs, video recorders, etc.

Products Line

Vertical Type

Products No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Operating life (5mA 5V DC)	Initial contact resistance	Stem color	Stem height	Drawing No.
SKHVBAD010	0.98N	Vertical	0.25	50mA 12V DC	1,000,000cycles	100mΩ max.	Black	h=4.3mm	1
SKHVBBD010	1.57N				500,000cycles		Dark gray		
SKHVBCD010	2.55N				200,000cycles		Red		
SKHVBDD010	0.98N				1,000,000cycles		Black	h=5mm	
SKHVBED010	1.57N				500,000cycles		Dark gray		
SKHVBFD010	2.55N				200,000cycles		Red		
SKHVCED010	5.10N				1,000,000cycles		Yellow	h=7mm	
SKHVBKD010	0.98N				500,000cycles		Black		
SKHVBLD010	1.57N				200,000cycles		Dark gray		
SKHVBMD010	2.55N				1,000,000cycles		Red	h=9.5mm	
SKHVBGD010	0.98N				500,000cycles		Black		
SKHVBHD010	1.57N				200,000cycles		Dark gray		
SKHVBJD010	2.55N				1,000,000cycles		Red		

With Ground Terminal Type

Products No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Operating life (5mA 5V DC)	Initial contact resistance	Stem color	Stem height	Drawing No.
SKHVPAD010	0.98N	Vertical	0.25	50mA 12V DC	1,000,000cycles	100mΩ max.	Black	h=4.3mm	2
SKHVBD010	1.57N				500,000cycles		Dark gray		
SKHVPCD010	2.55N				200,000cycles		Red		
SKHVPDD010	0.98N				1,000,000cycles		Black	h=5mm	
SKHVPED010	1.57N				500,000cycles		Dark gray		
SKHVPF010	2.55N				200,000cycles		Red		
SKHVPKD010	0.98N				1,000,000cycles		Black	h=7mm	
SKHVPLD010	1.57N				500,000cycles		Dark gray		
SKHVPMD010	2.55N				200,000cycles		Red		
SKHVPGD010	0.98N				1,000,000cycles		Black	h=9.5mm	
SKHVPHD010	1.57N				500,000cycles		Dark gray		
SKHVPJD010	2.55N				200,000cycles		Red		

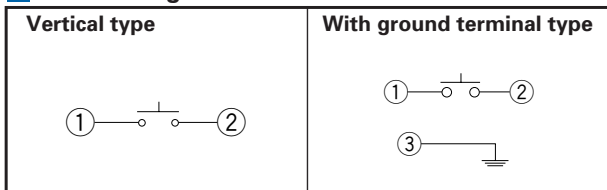
For detailed specifications, see P.413
 For soldering conditions, see P.414
 For specifications for the taping package, see P.417

Dimensions

Unit : mm

No.	Style	PC board mounting hole dimensions (Viewed from switch mounting face)										
1	Vertical type <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>h</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>4.3</td> <td>3.5</td> </tr> <tr> <td>5</td> <td>3.5</td> </tr> <tr> <td>7</td> <td>3.3</td> </tr> <tr> <td>9.5</td> <td>3</td> </tr> </tbody> </table>	h	A	4.3	3.5	5	3.5	7	3.3	9.5	3	
		h	A									
4.3	3.5											
5	3.5											
7	3.3											
9.5	3											
2	With ground terminal type <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>h</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>4.3</td> <td>3.5</td> </tr> <tr> <td>5</td> <td>3.5</td> </tr> <tr> <td>7</td> <td>3.3</td> </tr> <tr> <td>9.5</td> <td>3</td> </tr> </tbody> </table>	h	A	4.3	3.5	5	3.5	7	3.3	9.5	3	
		h	A									
4.3	3.5											
5	3.5											
7	3.3											
9.5	3											

Circuit Diagram



Note

Using a 1.6mm thick PC board is recommended.

Power

Push

Slide

Rotary

Encoders

Jog Shuttle

Telephone-hook

Detector

Vibration Sensors

Dual-in-line Package Type

Multi Control Devices

TACT

Sharp Feeling

Soft Feeling

Snap-in Type

Surface Mount Type

Radial Type

Products Specifications

Items		Series	Sharp feeling type	Soft feeling type
		-20°C to +70°C		
Operating temperature range			-30°C to +85°C SKRM / RW	-30°C to +80°C SKPG
			-30°C to +90°C SKRA / RG / RP	-40°C to +90°C SKPF / PL / PM / PN
Rating (max.)			50mA 12V DC SKRP : 50mA 16V DC	5mA 12V DC SKPL/PM/PN : 50mA 16V DC
Rating (min.)		10 μ A 1V DC		
Electrical performance	Insulation resistance	100M Ω SKEY/PD : 50M Ω		
	Voltage proof	250V AC for 1 min. SKRB/RH/RM/RR/EY/PD : 100V AC for 1min.		
Durability	Vibration	10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z for 2 hours respectively		
	Lifetime	Shall be in accordance with individual specifications.		
Environmental performance	Cold	-30 \pm 2°C for 96h		
	Dry heat	80 \pm 2°C for 96h		
	Damp heat	60 \pm 2°C, 90 to 95%RH for 96h		

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Note

We can raise the working temperature range for in-vehicle applications upon request. Contact us if you have any requirements of this kind.

Specifications of LED (SKHJ)

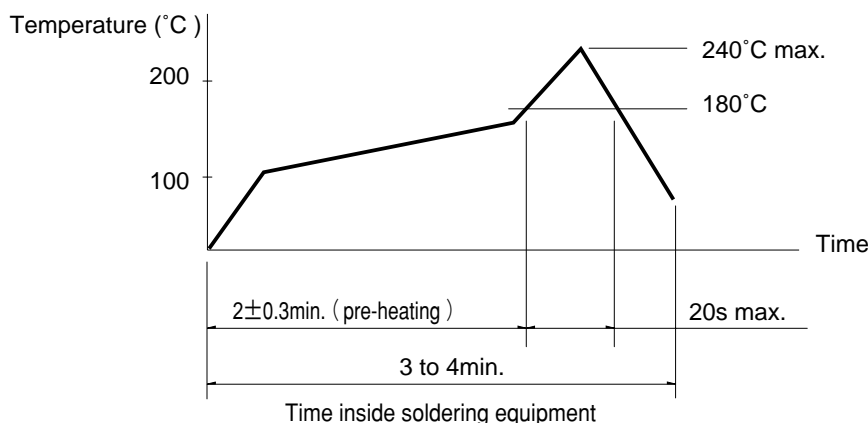
Color of light	Power dissipation	Forward pulse peak current	Forward current	Reverse voltage	Forward voltage	Reverse current	Peak emission wave length	Spectral line half width	Luminous intensity		
	P (mW)	IFP (mA)	IFDC (mA)	VR (V)	VF (V) IF=10mA	IR (μ A) VR=4V	λ peak (nm) IF=10mA	$\Delta \lambda$ (nm) IF=10mA	IV (mcd) IF=10mA		
Red	40	80	15	4	2.7 max. 2.05TYP	5 max.	700 TYP	100 TYP	0.4min. 1.0 TYP		
Pure green							555 TYP	20 TYP	0.8min. 2.0 TYP		
Amber							590 TYP	30 TYP	0.4min. 1.0 TYP		
Orange (High brightness)						3	2.7 max. 2.0 TYP	10 max.	630 TYP	40 TYP	1.5min. 4.0 TYP
Green (High brightness)						4	2.7 max. 2.05TYP		565 TYP	30 TYP	2.0min. 5.0 TYP

Soldering Conditions

Condition for Reflow

Available for Surface Mount Type. (Except SKHM Series)

1. Heating method: Double heating method with infrared heater.
2. Temperature measurement: Thermocouple 0.1 to 0.2 φ CA (K) or CC (T) at soldering portion (copper foil surface). A heat resisting tape should be used for fixed measurement.
3. Temperature profile



Notes

1. The condition mentioned above is the temperature on the mounting surface of a PC board. There are cases where the PC board's temperature greatly differs from that of the switch, depending on the PC board's material, size, thickness, etc. The above-stated conditions shall also apply to switch surface temperatures. (Except a part of Variety SKRM, SKRR Series)
2. Soldering conditions differ depending on reflow soldering machines. You are requested to verify the soldering conditions thoroughly beforehand.
3. Ask us for the specifications of lead-free products.

Conditions for Auto-dip

Available for Snap-in Type and Radial Type

Items	Condition
Flux built-up	Mounting surface should not be coated with flux
Preheating temperature	Ambient temperature of the soldered surface of PC board. 100°C max.
Preheating time	45s max.
Soldering temperature	255°C max.
Continuous dipping time	5s max.
Number of soldering	2times max.

Notes

1. Consult with us for TACT switch washing conditions.
2. Prevent flux penetration from the top side of the TACT switch.
3. Switch terminals and a PC board should not be coated with flux prior to soldering.
4. The second soldering should be done after the switch returns to normal temperature.
5. Use the flux with a specific gravity of at least 0.83. (MH-820V or CF220V by TAMURA Corporation, or their equivalents.)

Manual Soldering

Available for Manual Soldering Type

Items	Condition
Soldering temperature	350°C max.
Continuous soldering time	3s max.

- Power
- Push
- Slide
- Rotary
- Encoders
- Jog Shuttle
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