Products Search

Product Search

TACT Switch™ Surface Mount Type

3.0×2.7mm Compact High Operating Force Type (Surface Mount) SKSG Series

Part number **SKSGPJE010**

Standard

Basic information | Dimensions | Land Dimensions | Circuit Diagram | Packing Specifications | Soldering Conditions

NET SHOP

3D CAD

RoHS

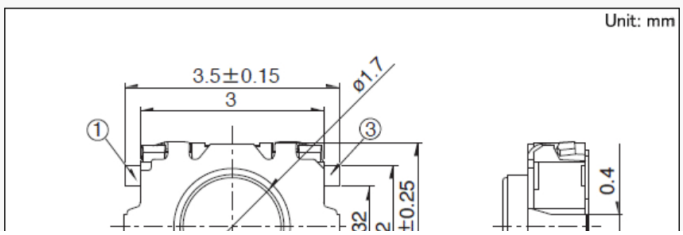
Product Specification

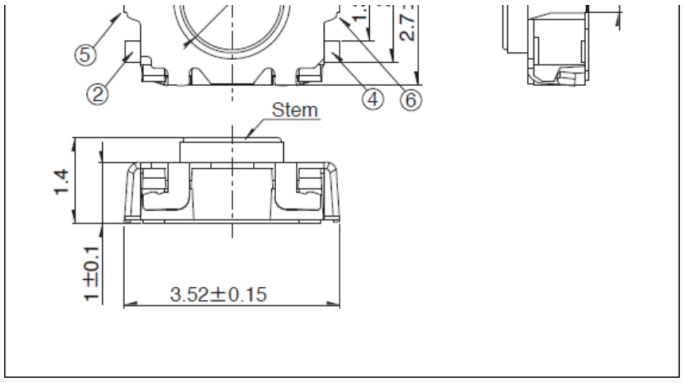
Inquiry

Print

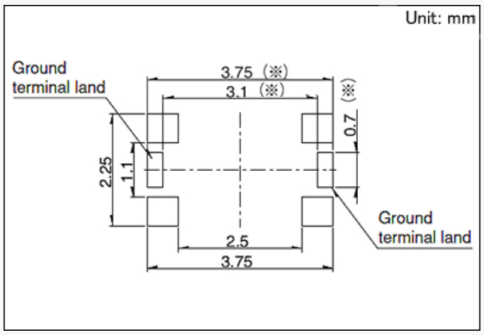
Type		Surface mount
Operating force		2.0N
Operating direction		Top push
Travel		0.12mm
Product height		1.4mm
Operating life(5mA 5V DC)		200,000cycles
Initial contact resistance		100mΩ max.
Stem color		Black
Dimensions(W×D×H)		3.0×2.7×1.4
Series type		Sharp feeling type
Operating temperature range		−40°C to +85°C
Absolute Maximum Ratings		50mA 12V DC
Rating (min.)		10μA 1V DC
Electrical performance	Insulation resistance	100MΩ min. 100V DC for 1 min.
	Voltage proof	100V AC for 1 min.
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
Environmental performance	Cold	−40°C 96h
	Dry heat	90°C 96h
	Damp heat	60°C, 90 to 95%RH 96h
Minimum order unit(pcs.)	Japan	12,000
	Export	12,000

Dimensions

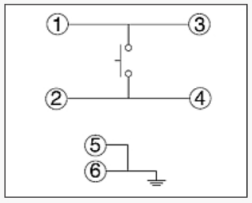




Land Dimensions

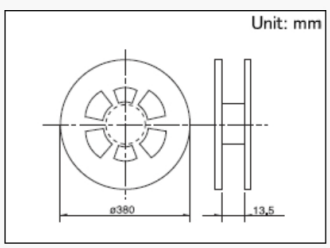


Circuit Diagram



Packing Specifications

Taping



Number of packages (pcs.)	
1 reel	12,000
1 case / Japan	120,000
1 case / export packing	120,000

Tape width (mm)

12

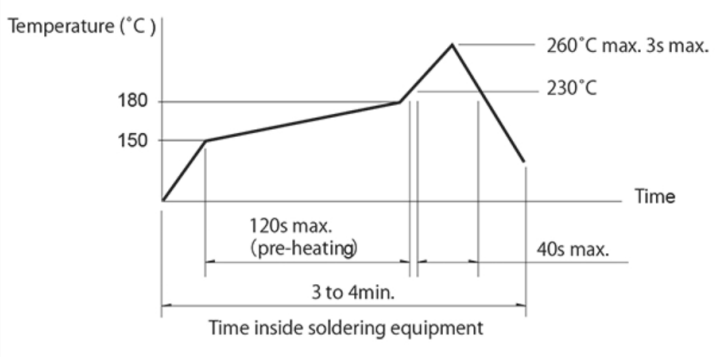
Export package measurements (mm)

395×395×205

Soldering Conditions

Condition for Reflow

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 solder joints (copper foil surface). A heat resisting tape should be used for fix measurement.
3. Temperature profile



(1) The above temperature shall be measured of the top of switch. There are cases where PC board' s temperature greatly differs from that of the switch, depending on the material, size, thickness of PC board' s and others. Care, should be taken to prevent the switch' s surface temperature from exceeding 260℃.
(2) Soldering conditions differ depending on reflow soldering machines. Prior verification of soldering condition is highly recommended.

Manual Soldering

Soldering temperature

350℃ max.

Duration of soldering

3s max.

Capacity of soldering iron

60W max.

1. Do not washing the TACT Switch™.
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.

Notes are common to this series/models

1. Please place purchase orders for taping products per minimum order unit (1 reel or a case).
2. This site catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
3. For φ330mm diameter reel requirements, please contact us.

Cautions

1. When terminals are exposed to mechanical stress during soldering, it may cause degradation in deformation and electrical property.
2. Through-hole PC board, or a PC board thickness other than the recommendation may cause larger heat stress. Prior verification is highly recommended.
3. In prior to the 2nd soldering swith shall be stable with normal temperature. It may cause deformation of swith, loose terminals, terminal removed from PC board, and / or degradation of electric property.
4. Verify samples with actual mass production conditions.
5. After soldering, do not wash switches with a solvent, etc.
6. The products are designed and manufactured for direct current resistance. Individual consultation is recommended for use of other resistances such as inductive (L) or capacitive (C) .
7. The sizes of holes and patterns on a PC board for mounting a switch, be asper the recommended dimensions in the product drawings.
8. This switch is designed for manually operated units. Must not use this switch for a mechanical detection unit. For detection purposes, please use our detection switch.
9. The switch will be broken if impact force or a greater stress than that specified is applied. Take great care not to let the switch be subject to greater stress than specified.
10. Do not apply a force from the side of the stem.
11. Be sure to push the center of switch for "without-stem" type. Extreme care is required for a hinge structure type, as the activation point may shift when it is pressed down.
12. The circuit setting (software setting) shall be ensured for error-free operations, caused by bounce and chattering as specified by each model of the switches.
13. Prior verification is needed to ensure that no corrosive gas-generating components are used near our switch. It may give negative influence such as contact failure.
14. Contact resistance of a carbon contact type may vary depending on push force. Confirm that it functions sufficiently in using TACT Switch™ with a voltage divider circuit.
15. Be aware of dust intrusion into a non dust-proof TACT switch™.
16. Storage
    1. Store the products as delivered, at a normal temperature and humidity, without direct sunshine and corrosive gas ambient. Use them at an earliest possible timing, not later than six months upon receipt.
    2. After breaking the seal, keep the products in a plastic bag to prevent out ambient air, store them in the same environment as above, and use all as soon as possible.
    3. Do not stack too many switches.
    4. Store the key switches in released position.
17. TACT Switch is a trademark or registered trademark of Alps Alpine Co., Ltd.

Measurement and Test Methods

Rotational Torque (Operating Force)

Measures the torque (operating force) necessary to rotate (move) the shaft (lever). Unless otherwise specified, measurement shall be made at ambient temperatures of 5 to 35° C, the shaft rotational speed shall be 60° per second, and the lever traveling speed shall be 20mm per second.

Shaft Wobble

Measures the amount of deflection at the specified position from the reference plane, with the specifiedbending moment, applied perpendicularly to the shaft from directions 180 degrees with respect to each other.

Withstand Voltage

Applies AC voltage to the specified spot for a minute and then checks for arc, burning, dielectric breakdown and other abnormalities. Respective terminals may be tested as a group. The sections described below shall be tested unless otherwise specified. However, if the section concerned is so constructed as to conduct, that particular part shall not be tested.

Insulation Resistance

Applies specified voltage to the specified locations and then measures the insulation resistance with a megger. The locations described below shall be tested unless otherwise specified. However, if the section concerned is so constructed as to conduct, that particular part shall not be tested.

Sections to be Tested for Withstand Voltage and Insulation Resistance

- Between terminal and shaft (lever).
- Between terminal and metal cover (frame).

Shaft (Lever) Strength against Push/Pull Actions

Applies a specified force in the axial direction of the shaft (lever) for 19 seconds and then checks the operating part and other sections for deformation, breakage, operating conditions, etc.

Inquiries about Products

Category List

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TACT Switch™

Switches

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Aspherical Glass Lens

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Actuators →

HAPTIC™ Reactor →

Touch Input Devices →