ALPS

ALPS Manufacturer of Electronic Components/Parts Catalog

4-direction with Center-push Function (SMD & Snap-in Type) SKQU Series

Detail

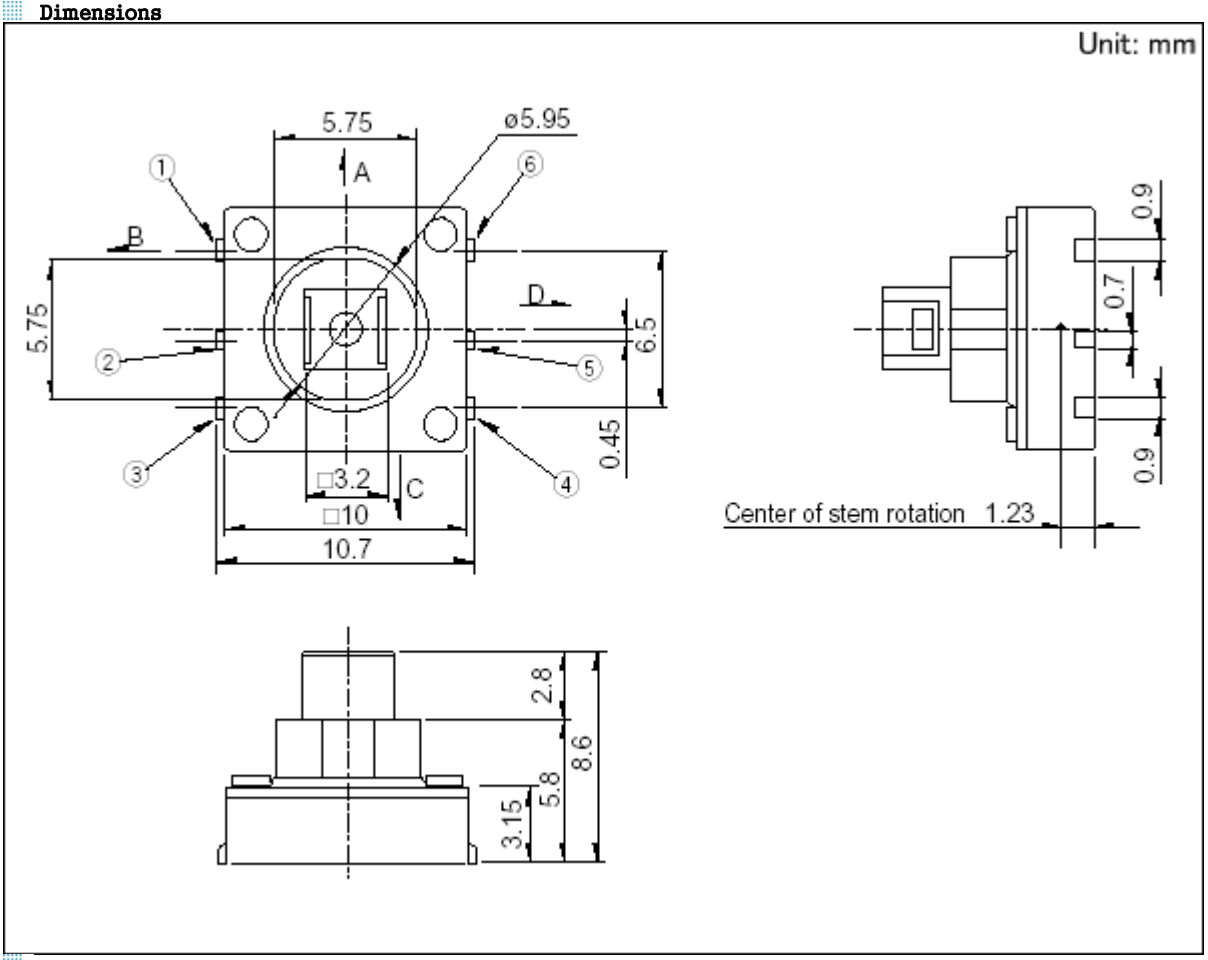
With Center Push Type

Model No.	SKQUDBE010

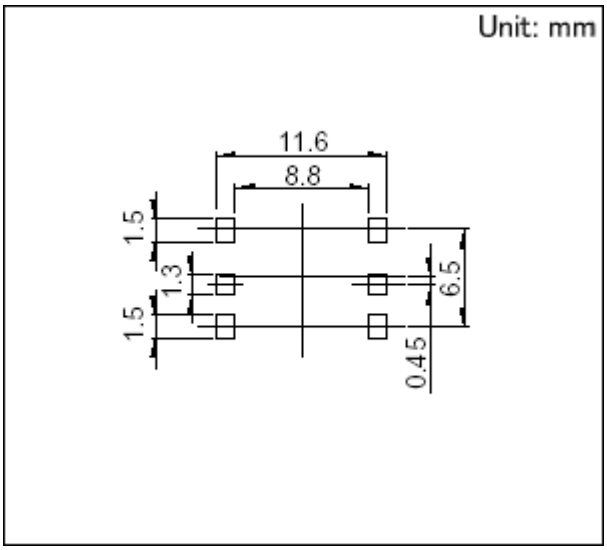
Type		Surface mount
Operating force	4-direction	1.57N
	Center push	3.14N
Travel	4-direction	0.4mm
	Center push	0.2mm
Operating life (5mA 5V DC)		100,000 cycles for each direction
Initial contact resistance		500mΩ max.
Minimum packing unit (pcs.)		600

Operating temperature range			-30℃ to +85℃
Ratings (max.)/(min.) (Resistive load)			50mA 12V DC/10μA 1V DC
Electrical performance	Directional resolution		4-direction
	Insulation resistance		100MΩ min. 100V DC
	Voltage proof		250V AC for 1 minute
Mechanical performance	Direction application force		1.57(+0.39, -0.69)N
	Push application force		3.14±0.59N
	Robustness of terminal		49N for 1 minute
	Solder heat resistance	Manual soldering	350℃ max. 3s max.
		Reflow soldering	Refer to soldering conditions
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
	Operating life	Directions	100,000 cycles
		Center push	100,000 cycles
Environmental performance	Cold		-30±2℃ for 96h
	Dry heat		80±2℃ for 96h
	Damp heat		60±2℃, 90 to 95%RH for 96h

Dimensions

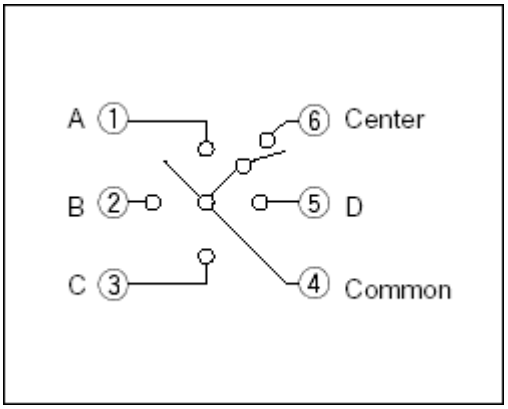


Land Dimensions



ewed from mounting face.

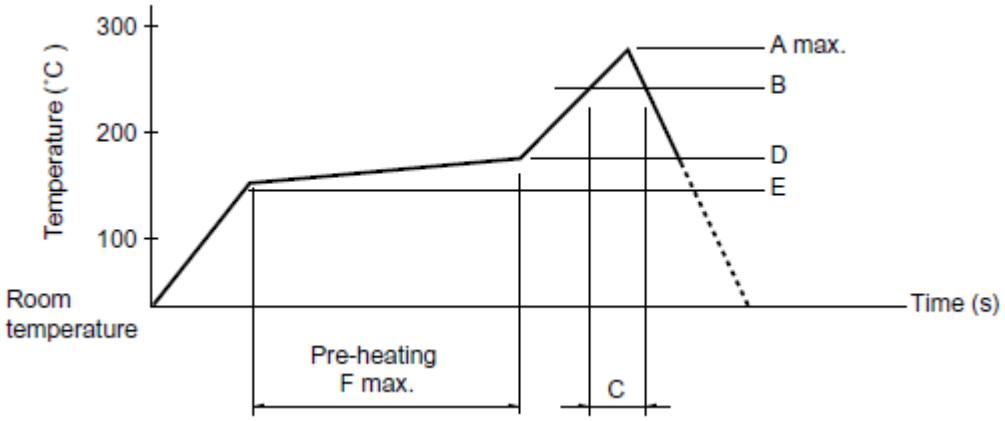
Circuit Diagram



Soldering Condition

Example of Reflow Soldering Condition (Reference)

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 to fix thermocouple.
3. Temperature profile
   (1) The condition mentioned above is the temperature on the mounting surface of a PC board. There are cases where PC board's temperature greatly differs from that of the switch, depending on the PC board's material, size, thickness, etc. Care, should be taken to prevent the switch's surface temperature from exceeding 260° C.
   (2) Soldering conditions differ depending on reflow soldering machines. Prior verification of soldering condition is highly recommended.

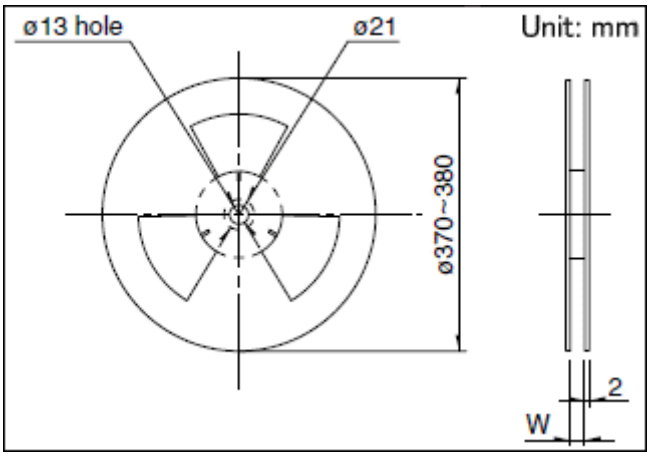
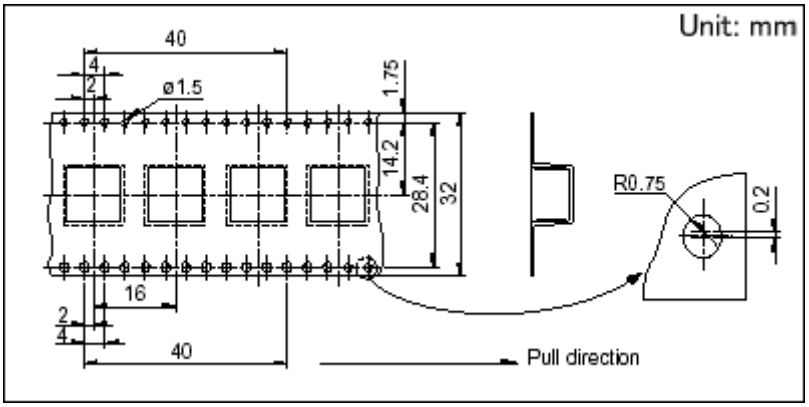


Series(Reflow type)	A(℃) 3s max.	B(℃)	C(s)	D(℃)	E(℃)	F(s)
RKJXS/SKRV/SKRH/SKQUBA,DB/SSAF/SRBE	260	230	40	180	150	120

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.

Taping Specifications

Taping Packaging for Auto-insertion

Reel Size	
Number of Packages 1 reel	600
Number of Packages 1 case (shipment within Japan)	2,400
Number of Packages 1 case (shipment outside of Japan)	2,400
Reel Width W (mm)	W = 33.5
Tape dimensions	
Tape width (mm)	32

Please place purchase orders for taping products per minmium package units (1 reel or a case).

NOTE Notes are common to this series/models.

1. For SKQUAA, and SKQUBA models, the 4-directional operating force and travel are measured 0.9mm below the top of the stem.
2. For SKQUCA models, the 4-drectional operating force and travel are measured 2.9mm below the top of the stem.
3. For SKQUDB models, the 4-drectional operating force and travel are measured 1.5mm below the top of the stem.
4. Place your purchase order in N minimum package units (N: integer).
5. Ask us for the export packaging unit.
6. For surface mount type, 1-reel is the minimum packing units. (Please see taping specifications)
7. Using a 1.6mm thick PC board is recommended. (Snap-in type.)

Inquiries about Products

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