



DEVETECH ELECTRONICS CO. LTD

6.2X6.2X3.5 J TYPE
CUSTOMER: DACHS ELECTRONICA
P/N: DVKFC-A06HA

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1. General specification

1.1 Scope

This specification covers the requirements for single key switches, which have no key.
(TACT SWITCHES: MECHANICAL CONTACT)

1.2 Operating Temperature Range

-20 to+70°C

1.3 Storage Temperature Range

-20 to+80°C (normal humidity, normal press.)

2. Type of Actuation

Tactile feedback

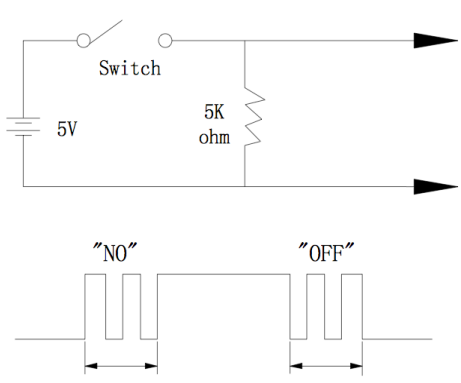
3. Maximum Ratings

DC 12V 50mA

DC 1V 10 μ A

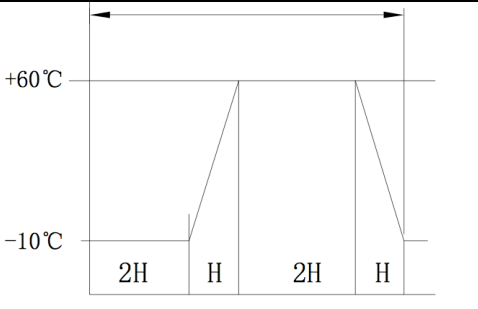
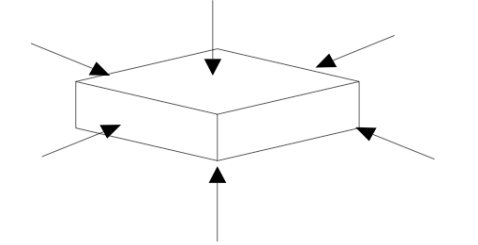
4. Test Item

Characteristic	Item	Test Breed	Test Condition	Test Requirements
Appearance	1	Visual Check	Without any external force applied and test prior to the visual way to test.	Not affect the product appearance of products Bad function defects.
Electrical Performance	2	Contact Resistance	Applying a static load twice the actuating force to the center of the stem, measurements shall be made with a 1 kHz small-current contact resistance meter.	50 m Ω Max.
	3	Insulation Resistance	Measurements shall be made following application of DC 100 V potential across terminals and across terminals and frame for one minute.	100 M Ω Min
	4	Dielectric Withstanding Voltage	AC250V (50Hz or 60Hz) shall be applied across terminals and across terminals and frame for one minute.	There shall be no breakdown

	5	Bounce	<p>Lightly striking the center of the stem at a rate encountered in normal use (3 to 4 operations per sec), Bounce shall be tested at “ON” and “OFF”.</p> 	5 m sec max.
Mechanical	6	Actuating Force	Placing the switch such that the direction of switch operation is vertical and then gradually increasing the load applied to the center of the stem, the maximum load required for the stem to come to a stop shall be measured.	250±50 gf
	7	Travel	Placing the switch such that the direction of switch operation is vertical and then applying a static load twice the actuation force to the center of the stem, the travel distance for the stem to come to a stop shall be measured.	0.3±0.1 mm
	8	Return Force	The sample switch is installed such that the direction of switch operation is vertical and, upon depression of the stem in its center the whole travel distance, the force of the stem to return to its free position shall be measured.	70gfMin
	9	Stop Strength	Placing the switch such that the direction of switch operation is vertical, a static load of 3 kgf shall be applied in the direction of stem operation for a period of 60 seconds.	There shall be no sign of damage mechanically and electrically



	10	Stem Strength	Placing the switch such that the direction of switch operation is vertical, the maximum force to withstand a pull applied opposite to the direction of stem operation shall be measured.	3 kgf
Environmental	11	Resistance to Low Temperatures	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made: (1) Temperature: $-30\pm 2^{\circ}\text{C}$ (2) Time: 96 hours (3) Water drops shall be removed	Item 2~5 Item 6 Item 7
	12	Heat Resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made. (1) Temperature: $80\pm 10^{\circ}\text{C}$ (2) Time: 96 hours	Item 2~5 Item 6 Item 7
	13	Moisture Resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made: (1) Temperature: $60\pm 2^{\circ}\text{C}$ (2) Relative humidity: 90 to 95% (3) Time: 96 hours (4) Water drops shall be removed	Contact resistance: 50 m ohm max. Insulation resistance 10 M ohm min. Item 2~5 Item 6 Item 7
	14	Temperature Cycling	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made. During this test, water drops shall be removed.	Item 2~5 Item 6 Item 7

				
Endurance	15	Operating Life	<p>Measurements shall be made following the test set forth below:</p> <ol style="list-style-type: none"> (1) DC 5V 5mA resistive load (2) Rate of operation : 2 to 3 operations per second, (3) Depression: 250±50gf (4) Cycles of operation 	<p>1-Contact resistance: 50mΩMax 2-Insulation resistance 100MΩmin. 3-Actuating force: 250±50gf of initial force.</p>
	16	Vibration Resistance	<p>Measurements shall be made following the test set forth below:</p> <ol style="list-style-type: none"> (1)Range of oscillation: 10~55 Hz (2)Amplitude pk to pk : 1.5mm (3)Cycle of sweep : 10-55-10Hz in one minute. (4)Mode of sweep: Logarithmically sweep or uniform sweep. (5)Direction of oscillation: Three mutually perpendicular directions, including the direction of stem travel. (6)Duration of testing: 2 hours each, for a total of 6 hours.. 	<p>Item 2~5 Item 6 Item 7</p>
	17	Impact Shcok resitance	<p>Measurements shall be made following the test set forth below:</p> <ol style="list-style-type: none"> (1) Acceleration: 80g (2) Cycles of test :3 cycles each in 6 directions.for a total of 18 cycles. 	<p>Item 2~5 Item 6 Item 7</p>

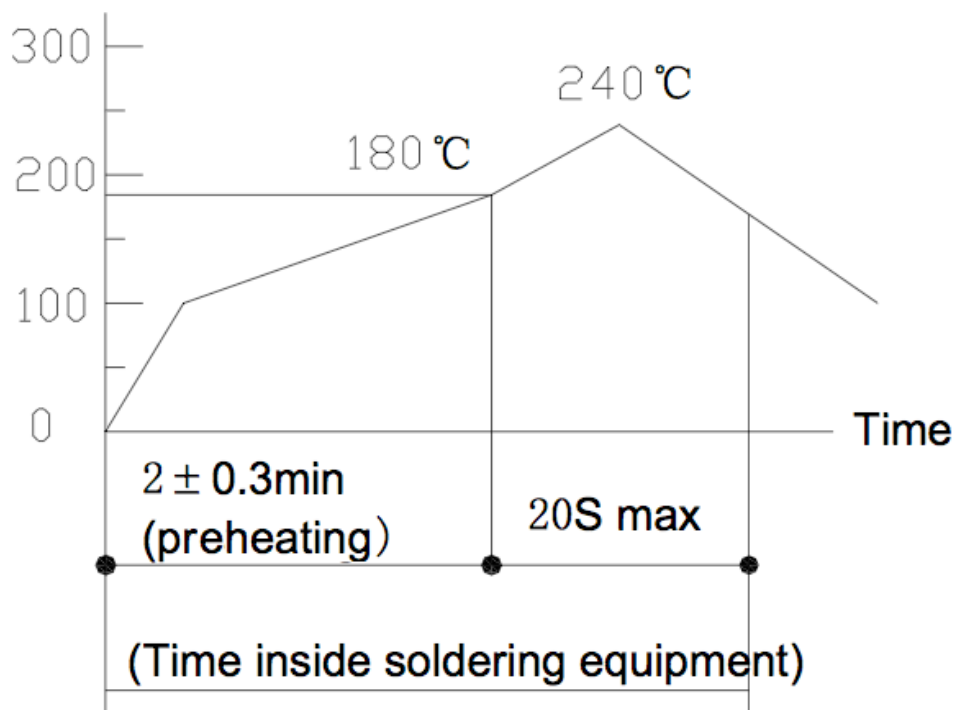
5. Conditions for soldering

Wave soldering conditions:

Preheat: Temperature on the copper foil surface should reach 180°C, 2±0.3 minutes after the P.W.B entered into the soldering equipment.

Soldering heat: Temperature on the copper foil surface should reach the peak temperature of 240°C within 20 seconds after the P.W.B entered into soldering heat zone.

Temperature°C



6. Other Precautions

- (1) Following the soldering process, do not try to clean the switch with a solvent or the like.
- (2) Safeguard the switch assembly against flux penetration from its topside.
- (3) The product is ensured to keep in close status and kindly noted the storage time not exceed 90 days after delivery.



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NOTES
