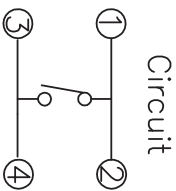
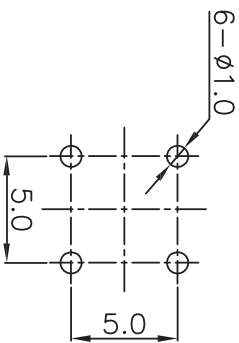


BUTTONCOLOR					
R	Y	G	B	W	BK
Red	Yellow	Green	Blue	White	Black



Circuit



PROJECTION

 SCALE: N/A
 TOLERANCE: EXCEPT AS NOTED
 DEC. MILLIMETERS: 0±0.50, 0.00±0.10
 ANG. 0.0°±1.1°

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TACT SWITCH-ROHS COMPLIANT

08-100	03/20/08	A	CHANGED THE DRAWING TO ROHS COMPLIANT & REVISED IT TO A SERIES DRAWING	VF	JY
ECN#	DATE	SYM	REVISION RECORD	AUTH	BY

DR. DATE REF. SHEET
 Jln 02/09/06 P/N: KEY-S-X-NL 1 OF 3
 PRE- DRAWING NO. 2716 SIZE REV.
 JY SW F

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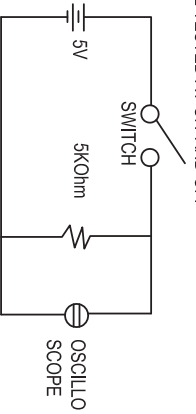
1. GENERAL

- 1.1 ITEM No.: KEY-S-BLACK
 - 1.2 SWITCH RATINGS: 10ma 35V DC.
 - 1.3 OPERATION TEMPERATURE RANGE: -25 C-70°C
 - 1.4 PRESERVATIVE TEMPERATURE RANGE: -30 C--80°C
 - 1.5 APPEARANCE AND DIMENSIONS: SEE OUTSIDE DRAWING PAGE
 - 1.6 STANDARD CONDITIONS: UNLESS OTHERWISE SPECIFIED, THE TEST AND MEASUREMENTS SHALL BE CARRIED OUT AS FOLLOWS:
 - 1-6-1 AMBIENT TEMPERATURE: 5-35 °C
 - 1-6-2 RELATIVE HUMIDITY: 45-85 % RH
 - 1-6-3 AIR PRESSURE: 86-106kPa(860-1060mbar)
- HOWEVER, IF DOUBT ARISES ON THE DECISION BASED ON THE MEASURED VALUES UNDER THE ABOVE-MENTIONED CONDITIONS, THE FOLLOWING CONDITIONS SHALL BE EMPLOYED.
- 1-6-4 AMBIENT TEMPERATURE: 20-22 °C
 - 1-6-5 RELATIVE HUMIDITY: 65±5% RH
 - 1-6-6 AIR PRESSURE: 86-106kPa(860-1060mbar)

2. PERFORMANCE

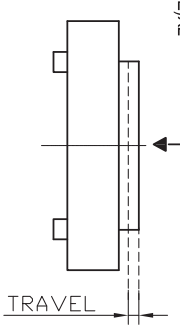
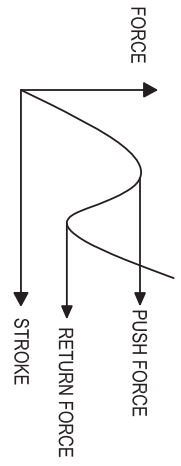
2-1 ELECTRICAL CHARACTERISTICS

No	ITEM	TEST CONDITIONS	PERFORMANCE
2.1.1	CONTACT RESISTANCE	APPLYING A STATIC LOAD TWICE THE ACTUATING FORCE TO THE CENTER OF THE STEM, MEASUREMENTS SHALL BE MADE WITH A 1KHZ SMALL CURRENT CONTACT RESISTANCE METER.	30mOhm MAX
2.1.2	INSULATION RESISTANCE	MEASUREMENTS SHALL BE MADE FOLLOWING APPLICATION OF DC 250V POTENTIAL ACROSS TERMINALS AND ACROSS TERMINALS AND FRAME FOR ONE MINUTE.	100MOhm MIN
2.1.3	DIELECTRIC WITHSTAND VOLTAGE	AC 250V(50HZ OR 60HZ) SHALL BE APPLIED ACROSS TERMINALS AND FRAME FOR ONE MINUTE.	THERE SHALL BE NO BREAKDOWN
2.1.4	BOUNCE	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.	40m SEC MAX

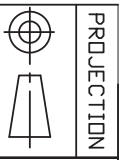


2-2 MECHANICAL CHARACTERISTICS

No	ITEM	TEST CONDITIONS	PERFORMANCE
2.2.1	OPERATING FORCE	PUSH BY RECOMMENDED OPERATING CONDITION.	OPERATING FORCE: 250±50g
2.2.2	TRAVEL	PUSH BY RECOMMENDED OPERATING CONDITION. F=(OPERATION FORCE)X2	0.7±0.20mm
2.2.3	STOP STRENGTH	ASTATIC LOAD OF 1kgf SHALL BE APPLIED IN THE DIRECTION OF STEM OPERATION FOR A PERIOD OF 60 SECONDS	NO DAMAGE (ELECTRICAL AND MECHANICAL)
2.2.4	STEM STRENGTH	THE MAXIMUM FORCE TO WITHSTAND A PULL APPLIED OPPOSITE TO THE DIRECTION OF STEM OPERATION SHALL BE MEASURED.	500gf MIN
2.2.5	VIBRATION TEST	1) AMPLITUDE: 1.5mm 2) SWEEP RATE: 10-55-10HZ FOR 1 MINUTE. 3) SWEEP METHOD: LOGARITHMIC FREQUENCY SWEEP RATE. 4) VIBRATION DIRECTION: X, Y, Z(3 DIRECTIONS) 5) TIME: EACH DIRECTION 2 HOURS(TOTAL 6 HOURS)	No.2.1 AND 2.2.1 TO 2.2.2 SHALL BE SATISFIED.



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ECN#	DATE	SYM	REVISION RECD	AUTH	BY	ANG. N/A	CK. JY	PRE-DRAWING NO. 2716	SIZE F	REV. A

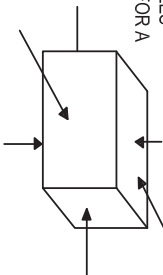


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TACT SWITCH-ROHS COMPLIANT

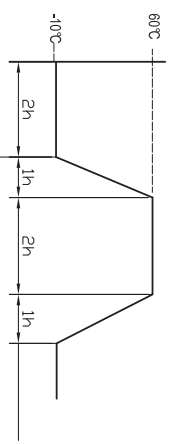
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No	ITEM	TEST CONDITIONS	PERFORMANCE
2.2.6	IMPACT SHOCK TEST	1) ACCELERATION: 80g 2) CYCLES OF TEST: 3 CYCLES EACH IN 6 DIRECTIONS, FOR A TOTAL 18 CYCLES	No. 2.1 AND 2.2.1 TO 2.2.2 SHALL BE SATISFIED.
2.2.7	SOLDERING HEAT TEST	1) SOLDERING AREA: 1/2 OF P.W.B THICKNESS(P.W.B=(1.6) 2) SOLDERING TEMPERATURE: 280±5°C 3) SOLDERING TIME: 5± 1 SEC	NO DAMAGE (ELECTRICAL AND MECHANICAL)



2-3 CLIMATIC CHARACTERISTICS

No	ITEM	TEST CONDITIONS	PERFORMANCE
2.3.1	COLD TEST	1) TEMPERATURE: -30±2°C 2) DURATION OF TEST: .96 HOURS 3) TAKE OFF A DROP WATER 4) STANDARD CONDITION AFTER TEST: 1 HOUR	CONTACT RESISTANCE: 200mOhm MAX No 2.1.2 TO 2.1.4 AND 2.2.1 TO 2.2.2 SHALL BE SATISFIED.
2.3.2	HEAT TEST	1) TEMPERATURE: 80±2°C 2) DURATION OF TEST: .96 HOURS 3) STANDARD CONDITION AFTER TEST: 1 HOUR	CONTACT RESISTANCE: 200mOhm MAX No 2.1.2 TO 2.1.4 AND 2.2.1 TO 2.2.2 SHALL BE SATISFIED.
2.3.3	TEMPERATURE CYCLE	1) TEST CYCLES: 5 CYCLES 2) STANDARD CONDITION AFTER TEST: 1 HOUR 3) 1 CYCLES	CONTACT RESISTANCE: 250mOhm MAX. BOUNCE: 20m SEC. MAX ACTUATING FORCE: ±30% INITIAL FORCE No 2.1.2 TO 2.1.3 AND 2.2.2 SHALL BE SATISFIED.
2.3.4	HUMIDITY TEST	1) TEMPERATURE: 60±2°C 2) RELATIVE HUMIDITY: 90-95% 3) DURATION OF TEST: .96 HOURS 4) TAKE OFF A DROP WATER. 5) STANDARD CONDITION AFTER TEST: 1 HOUR	CONTACT RESISTANCE: 250mOhm MAX. BOUNCE: 20m SEC. MAX ACTUATING FORCE: ±30% INITIAL FORCE No 2.1.2 TO 2.1.3 AND 2.2.2 SHALL BE SATISFIED.
2.3.5	OPERATING LIFE TEST	1) DC 5V, 5mA RESISTANCE LOAD 2) OPERATION SPEED: 40-60 CYCLES/SEC 3) PUSH FORCE: MAXIMUM VALUE OF OPERATION FORCE 4) CYCLE OF OPERATION: 100000 CYCLES	CONTACT RESISTANCE: 250mOhm MAX. BOUNCE: 20m SEC. MAX ACTUATING FORCE: ±30% INITIAL FORCE No 2.1.2 TO 2.1.3 AND 2.2.2 SHALL BE SATISFIED.



No	ITEM	TEST CONDITIONS	PERFORMANCE
2.3.6	WITHSTAND H2S	1) DENSITY: 3± 1 ppm 2) TEMPERATURE: 40±2°C 3) RELATIVE HUMIDITY: 90-95% 4) DURATION OF TEST: 24 HOURS 5) STANDARD CONDITIONS AFTER TEST: 1 HOUR	CONTACT RESISTANCE: 300mOhm MAX. No 2.1.2 TO 2.1.4 AND 2.2.1 TO 2.2.2 SHALL BE SATISFIED.
2.3.7	WITHSTAND SO2	1) DENSITY: 10± 1 ppm 2) TEMPERATURE: 40±2°C 3) RELATIVE HUMIDITY: 90-95% 4) DURATION OF TEST: 24 HOURS 5) STANDARD CONDITIONS AFTER TEST: 1 HOUR	CONTACT RESISTANCE: 300mOhm MAX. No 2.1.2 TO 2.1.4 AND 2.2.1 TO 2.2.2 SHALL BE SATISFIED.

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ECN#	DATE	SYM	REVISION RECD

PROJECTION

SCALE: N/A

TOLERANCE: EXCEPT AS NOTED

DEC. MILLIMETERS: N/A

DEC. INCHES: N/A

ANG. N/A

TITLE: TACT SWITCH-ROHS COMPLIANT

DATE: 02/09/06

REF. P/N: KEY-S-X-NL

PRE-DRAWING NO. 2716

SIZE: 3 DF 3

REV. A



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