JJ SERIES DETECTOR SWITCHES

TYPE JJA SERIES



INTRODUCTION

TE Connectivity's (TE)'s JJA Series of Detector Switches are suitable for a wide variety of applications available in various configurations including horizontal and vertical actuation options as well as Gull-winged, J-leaded and Through-hole mounting possibilities.

The Detector Switches will be offered in a wide range of sizes giving the possibility for countless applications going from automotive to telecommunications.

BENEFITS

- RoHS Compliant
- Halogen and Lead Free
- Sharp detection feeling
- Compact Size

APPLICATIONS

- Automotive
- Instrumentation
- White goods
- Telecommunications
- Notebooks
- Smartphones

FAMILY CLASSIFICATION

Series	Body Size
JJA	**3.5mm x 2.8mm**
JJB	3.5mm x 2.98mm
JJC	3.5mm x 3.3mm
JJD	4.2mm x 3.6mm
JJE	4.7mm x 3.5mm
JJF	4.7mm x 3.8mm
JJG	5.7mm x 4.0mm (Metal cover)
JJH	5.7mm x 4.0mm (Plastic cover)
JJI	5.0mm x 4.4mm
JJJ	6.0mm x 4.85mm / 5.5mm x 4.7mm
JJK	6.3mm x 3.0mm
JJL	6.5mm x 3.9mm
JJM	5.7mm x 4.0mm
JJN	5.7mm x 4.0mm (Wedge)
JJO	10.0mm x 3.8mm
JJP	10.6mm x 10.0mm

JJA FAMILY – 3.5mmX2.8mm

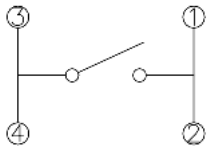


Parameter	Specification
Contact Rating	1mA, 5VDC
Contact Resistance	2Ω Max.
Insulation Resistance	100MΩ Min. 100VDC
Dielectric Strength	100 VAC / 1 minute
Operating Force	50 gF Max.
Travel	1.03mm
Operating Life	Upto 100,000 cycles
Operating Temperature	-10°C to 60°C
Storage Temperature	-20°C to 70°C

FEATURES

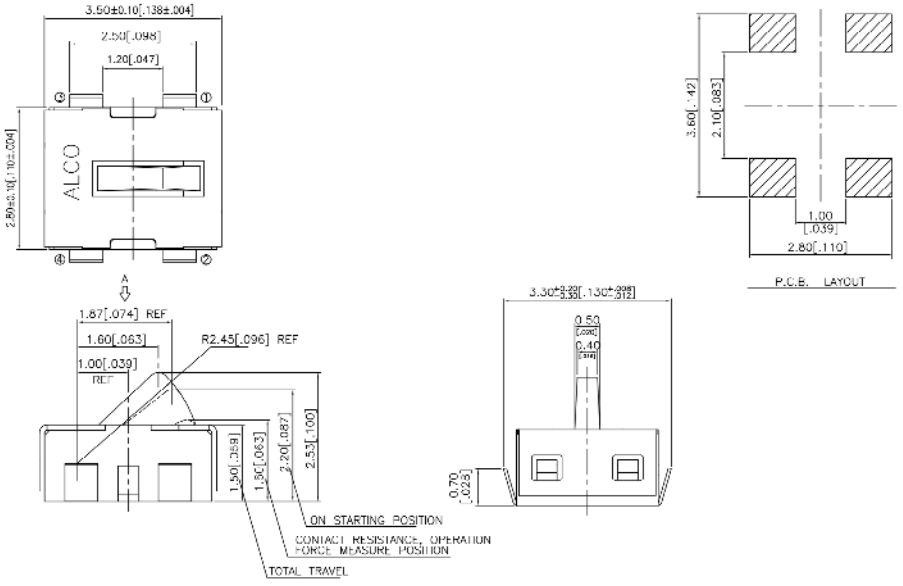
- Easy orientation is provided by the guiding post.
- Ultra-low profile

CIRCUIT



DIAGRAMS

- Non-Posted

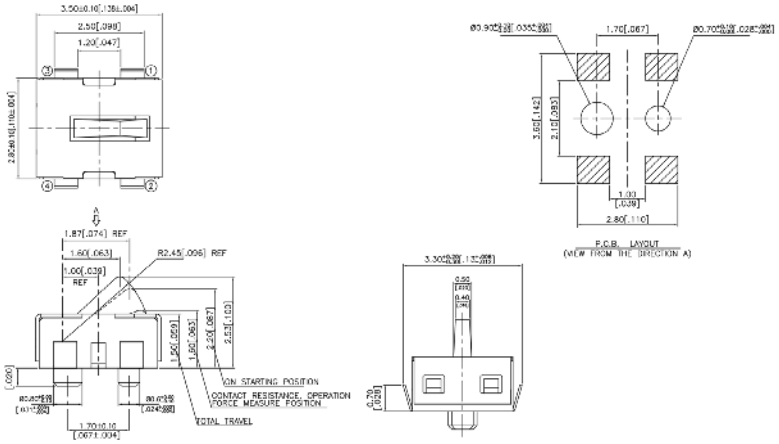


Note: All dimensions are in mm.

JJ Series Detector Switches

Type JJA Series

- Posted



Note: All dimensions are in mm.

TECHNICAL SPECIFICATION

- Orientation : Vertical Push
- Grounding : Ungrounded
- Mounting : J-Bend

STYLE

"Detector switches" are mainly used as signal switches of electric devices, with the general requirements of mechanical and electrical characteristics.

Operating Temperature Range: -10°C to 60°C

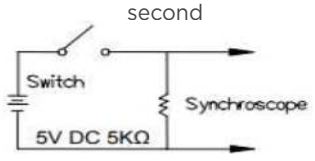
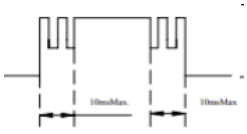
Storage Temperature Range: -20°C to 70°C

The shelf life of is approx 6 months..

CURRENT RANGE : 1 mA, 5 VDC

TYPE OF ACTUATION : Momentary

TEST SEQUENCE

Type	Item	Description	Test Conditions	Requirements
Appearance	1	Visual Examination	Physical inspection without applying any external forces.	There shall be no defects that affect the serviceability of the product.
Electric Performance	2	Contact Resistance	Actuate the switch (1.60±0.2mm) and measure contact resistance using a micro-Ohmmeter.	2Ω Max.
	3	Insulation Resistance	Measurements shall be made at 100VDC potential between terminals and cover.	100MΩ Min.
	4	Dielectric Withstanding Voltage	Apply 100VAC (50Hz or 60Hz) between terminals and cover for 1 minute.	There shall be no breakdown or flashover
	5	Capacitance	Capacitance shall be measured at 1 MHz between terminals.	5 pF Max.
	6	Bounce	3 to 4 operations at a rate of 1 cycle per second 	10 milliseconds Max. 

TEST SEQUENCE (CONTINUATION)

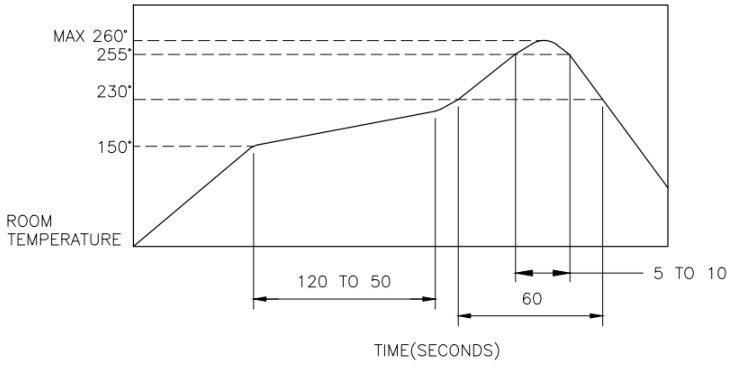
Type	Item	Description	Test Conditions	Requirements
Mechanical Performance	7	Operating Force	Applying force to the center of the stem for 1.60±0.2mm (0.063 ± 0.008in.)	50gF Max. (0.49N Max.)
	8	Contact (On) point	----------	As the specification shows ON start position
	9	Stop Strength	Apply vertical static load of 500gF (4.90N) for 15 seconds and 100gF (0.98N) horizontal static load for 15 seconds.	1) As shown in item 4 to 5 2) Contact Resistance: 5Ω Max. 3) Insulation Resistance: 100MΩ Min.
	10	Solder Heat Resistance	(See chart below)	1) Shall be free from pronounced backlash and falling-off or breakage terminals 2) As shown in item 4 to 5 3) Contact Resistance: 5Ω Max. 4) Insulation Resistance: 10MΩ Min
	11	Vibration	1) Swing distance=1.5mm 2) Frequency: 10 Hz to 55 Hz to 10 Hz, one cycle per minute. 3) Direction: 3 vertical directions including the directions of operation 4)Test time: 2 hours each direction Test per Method 201A of **MIL-STD-202F**	1) As shown in item 4 to 5 2) Contact Resistance: 5Ω Max. 3) Insulation Resistance: 10MΩ Min
	12	Shock	1) Acceleration; 50G 2) Action time: 11±1 ms 3) Testing Direction: 6 sides 4) Test Cycle: 3 times in each direction Test per Method 213B condition a of **MIL-STD-202F**	
Durability	13	Operating Life	Tested as follows: 1) 1mA,5 VDC resistive load 2) Applying a static load the operating force to the center of the stem in the direction of operation Static Load = OF Max. 3) Rate of Operation: 15 to 20 operations per minute. 4) Cycle of Operation: Minimum upto 100,000 cycles Min.	1) As shown in item 4 to 5 2) Operating force: Tolerance within +10% of initial force. 3) Contact Resistance: 5Ω Max. 4) Insulation Resistance: 10MΩ Min.
Water-resistance	14	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made: 1) Temperature: -20 ± 2°C 2) Time: 96 hours	1) As shown in item 4 to 5 2) Contact Resistance: 5Ω Max. 3) Insulation Resistance: 10MΩ Min.
	15	Heat Resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made: 1) Temperature:85 ± 2°C 2) Time: 96 hours	

TEST SEQUENCE (CONTINUATION)

Type	Item	Description	Test Conditions	Requirements
Water-resistance	16	Humidity Resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made: 1) Temperature: 40 ± 2°C 2) Relative Humidity: 90% to 95% 3) Time: 96 hours	1) As shown in items 4 to 5. 2) Insulation Resistance: 5MΩ Max. 3) Insulation Resistance: 10MΩ Min.

SOLDERING CONDITIONS

Recommended soldering profile for the JJA series



The temperatures defined above are the temperatures measured on the surface of the Printed Circuit Board. There are cases where the printed circuit board's temperature differs greatly from the temperature of the switch. Critical note: the switch's surface temperature must not exceed 260°C.

MANUAL SOLDERING

Soldering Temperature: 350°C Max.
Continuous Soldering Time: 5 seconds Max.

PRECAUTIONS IN HANDLING

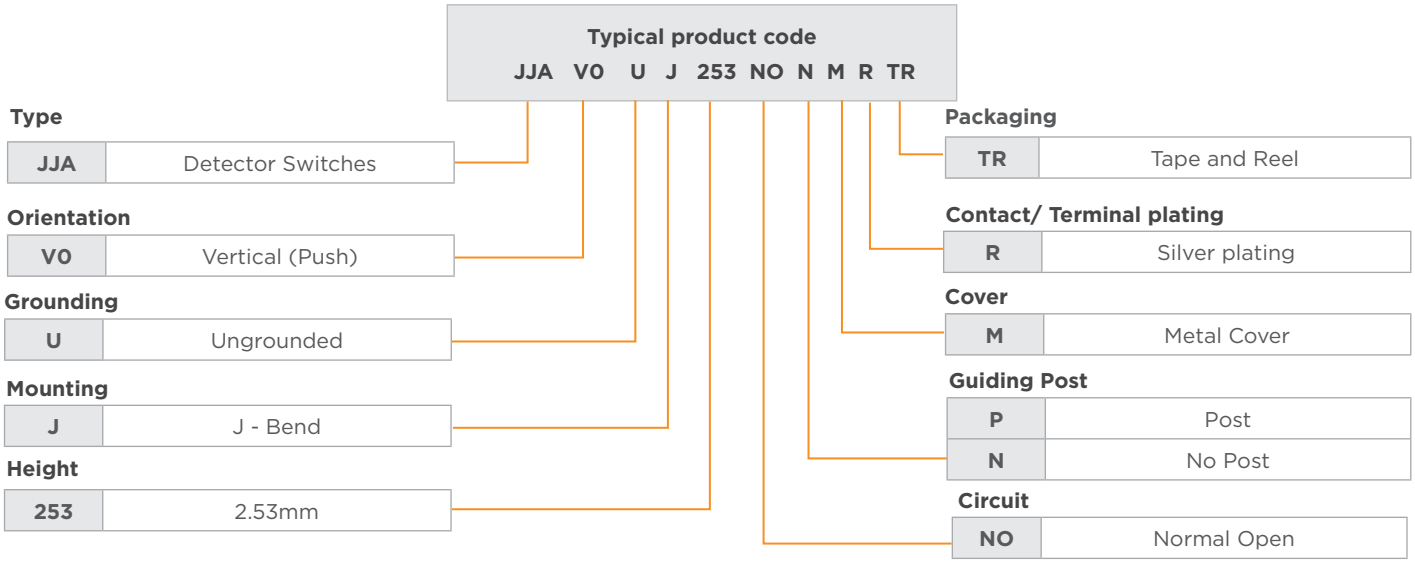
1. Care must be taken to ensure excess flux on the top surface of the printed circuit board does not adhere to the switch.
2. Do not wash the switch.

RECOMMENDED STORAGE CONDITIONS

Store the products in the original packaging material. After opening the package, the remaining products must be stored in the appropriate moisture-proof & airtight environment.
Do not store the switch in the following environment or it may affect performance and solderability:

1. Temperatures outside -10°C to +40°C and humidity above 85%.
2. Environment with corrosive gas
3. Storage over 6 months
4. Place in direct sunlight

ORDERING INFORMATION



PN LIST

Smart PN	Height mm	Circuit	Guiding Post	Cover	Plating	Packaging	MOQ	TE PN
JJAV0UJ253NOPMRTR	2.53	NO	Post	Metal	Silver	Tape and Reel	2,000	2331373-1
JJAV0UJ253NONMRTR	2.53	NO	No Post	Metal	Silver	Tape and Reel	2,000	2331374-1

Note: Minimum Order Quantity (pcs)

Legal Disclaimer Notice

© 2026 TE Connectivity. All Rights Reserved.
TE Connectivity, TE, TE connectivity (logo) and EVERY CONNECTION COUNTS are trademarks owned or licensed by the TE Connectivity plc family of companies. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

While TE Connectivity has made every reasonable effort to ensure the accuracy of the information contained herein, TE does not warrant or guarantee that such information is error-free, complete, reliable, or current. TE reserves the right to make changes to the information contained herein at any time without prior notice.

All dimensions, specifications and other information contained herein are provided for reference purposes only and are subject to change without notice. Product performance, reliability and service life may be affected by a variety of factors, including, but not limited to, processing conditions, soldering, cleaning, rework, mechanical stress, temperature, humidity, storage conditions, equipment configuration, handling, environmental exposure and specific end-use applications. Electrical, thermal and other performance characteristics are based on standardised test methods and stated conditions and may vary in actual applications. Where applicable, derating shall be applied and stated maximum limits must not be exceeded. Unless otherwise expressly specified, any statements regarding compliance with environmental, regulatory or other requirements apply only to the materials and manufacturing conditions in effect at the time of production.

Except as expressly set forth in TE Connectivity's applicable terms and conditions of sale, TE makes no representations or warranties, express or implied, including, without limitation, any implied warranties of merchantability, fitness for a particular purpose, or non-infringement. To the maximum extent permitted by applicable law, TE Connectivity shall not be liable for any indirect, incidental, special or consequential damages arising out of or in connection with the use or reliance on the information or products described herein.

Products are not designed for use in life-support, life-sustaining, or safety-critical applications unless specifically qualified and expressly approved in writing by TE Connectivity. It is the responsibility of the user to determine the suitability of TE Connectivity products for the intended application and to validate product selection, performance, qualification, compliance and processing under actual operating conditions.

For the latest dimensions, specifications and other information, please contact TE Connectivity.