

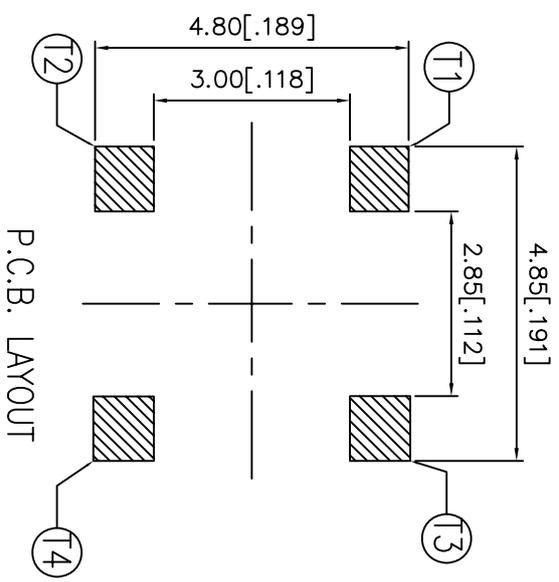
CIRCUIT DIAGRAM

- SPECIFICATIONS:
1. Rating : 50mA, DC12V
 2. Contact Resistance : 100mΩ Max
 3. Insulation Resistance : DC 100V 1M±5s 100mΩ min
 4. Dielectric Strength : AC 100V 1M±5s

NOTE:
 1. ALL DIMENSIONS ARE IN MILLIMETER, BRACKETED DIMENSIONS ARE IN INCHES.
 2. GENANAL TOLERANCES ±0.20mm [.008].

Table 1

PART NO	OF
T4BJB10-Q	100gf
T4BJB16-Q	160gf
T4BJB20-Q	200gf
T4BJB26-Q	260gf
T4BJB36-Q	360gf

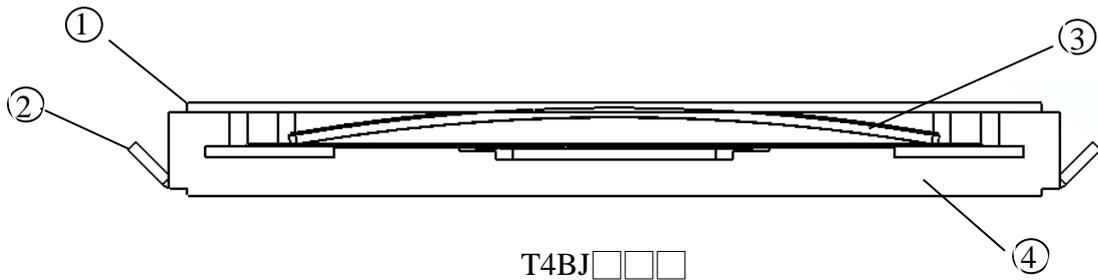


P.C.B. LAYOUT

ZONE	REV.	DESCRIPTION	DATE	APPD.
△		依工程 11113>執行工程	11.09.09	
△	C	新增4BJB36-Q規格	10.05.20	張明義
△	B	DWG REL.	09.10.20	張明義
△	A			

APPD:	QTY:	SCALE:	8/1	圖達實業股份有限公司	PART NAME:
DR:	REV:	UNIT:	mm	DIPTRONICS MANUFACTURING INC.	TACT SW
DR:	REV:	UNIT:	mm	T4BJB□-Q	DWG NO:
DR:	REV:	UNIT:	mm	FINISH:	RD5P4B

ITEM	DESC.	Q'TY	MATERIALS	TREATMENT	REMARK
1.	ADHESIVE TAPE	1	KAPTON	NONE	-
2.	TERMINAL	1	PHOSPHOR BRONZE	WITH SILVER CLADDING	-
3.	CONTACT	1	STAINLESS STEEL	WITH SILVER PLATING	-
4.	BASE	1	HIGH - TEMP THERMOPLASTIC LCP	MOLDED BLACK	-



PROD. NO. : T 4 B J □ □ □ - Q - □

PROD. SIZE:
4B=4.8x4.8

TERMINATION TYPE:
J = J TYPE S.M.T.

THE MIDDLE OF PITCH:
A = 2.80mm
B = 3.70mm

PACKAGE STYLE:
□=REGULAR
T/R=TAPE & REEL

Q=Halogen Free

OPERATING FORCE :
1 0 = 100gf
1 6 = 160gf
2 0 = 200gf
2 6 = 260gf
3 6 = 360gf

TITLE: TACTILE SWITCH TYPE	APPD :
PROD. NO. : T4BJ□□□-Q-□	CHKD.:
FILE NO. : E-Q-CT58	PR. : 陳清梅
	REV: A SHEET:1of1

A1	DWG.REL.	
RVE.	ECO NO.	APPD.

T4BJ□-Q SPECIFICATION

FILE No. : E-Q-AT44

REV. : B

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1. Style

This specification describes "TACTILE SWITCH", mainly used as signal switch of electric devices, with the general requirements of mechanical and electrical characteristic..

1.1 Operating Temperature Range : $-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$

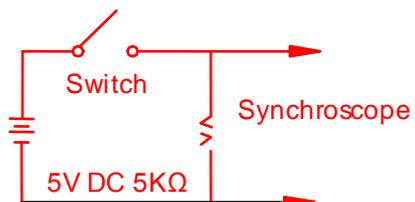
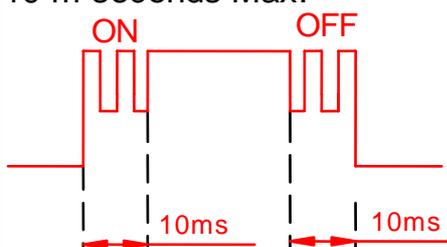
1.2 Storage Temperature Range : $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

1.3 The shelf life of product is within 6 months.

2. **Current Range:** 50mA , 12 V DC

3. **Type of Actuation:** Tactile feedback

4. **Test Sequence:**

	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
APPEARANCE	1	Visual Examination	By visual examination check without any out pressure & testing.	There shall be no defects that affect the serviceability of the product.
ELECTRIC PERFORMANCE	2	Contact Resistance	Applying a static load 1.5~2 times the operating force to the center made with a 1 kHz small current contact resistance meter.	100mΩ Max.
	3	Insulation Resistance	Measurements shall be made following application of 100 V DC potential across terminals and cover for 1 minute ± 5 seconds.	100MΩ Min.
	4	Dielectric Withstanding Voltage	100 V AC(50Hz or 60Hz) shall be applied across terminals and cover for 1 minute	There shall be no breakdown or flashover.
	5	Bounce	3 to 4 operations at a rate of 1 cycles per second 	10 m seconds Max. 

T4BJ□-Q SPECIFICATION

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MECHANICAL PERFORMANCE

MECHANICAL PERFORMANCE	6	Operating Force	Applied in the direction of operation. 	O F	100gf ±50g (.98N± .49N)	160gf ±50g (1.57N± .49N)	200gf ±50g (1.96N± .49N)	260gf ±50g (2.55N± .49N)	360gf ±60g (3.53±.5 88N)
	7	Stroke	Placing the switch such that the direction of switch operation is vertical and then gradually increasing the load applied to the stem, the stroke distance for the stem to come to a stop shall be measured.	0.2±0.1mm					
	8	Stop Strength	Placing the switch such that the direction of switch operation is vertical, a static load of 3 kgf(29.4N) shall be applied in the direction of stem operation for a period of 15 seconds	As shown in item 4~6					
	9	Solder Heat Resistance	■ SMT Type ~ T4BJ-Q Series(4/4) (PCB is 1.2 mm in thickness)	① Shall be free from pronounced backlash and falling-off or breakage terminals ② As shown in item 4 ③ Contact Resistance: 200mΩ Max ④ Insulation Resistance: 10MΩ Min					
	10	Vibration	Shall be vibrated in accordance with Method 201A of MIL-STD-202F 1) Swing distance=1.5mm 2) Frequency: 10-55-10Hz in 1-min/cycle. 3) Direction: 3 vertical directions including the directions of operation 4) Test time: 2 hours each direction	1)As shown in item 4~6 2)Contact Resistance: 200mΩ Max 3)Insulation Resistance: 10MΩ Min					

T4BJ□-Q SPECIFICATION

FILE No. : E-Q-AT44

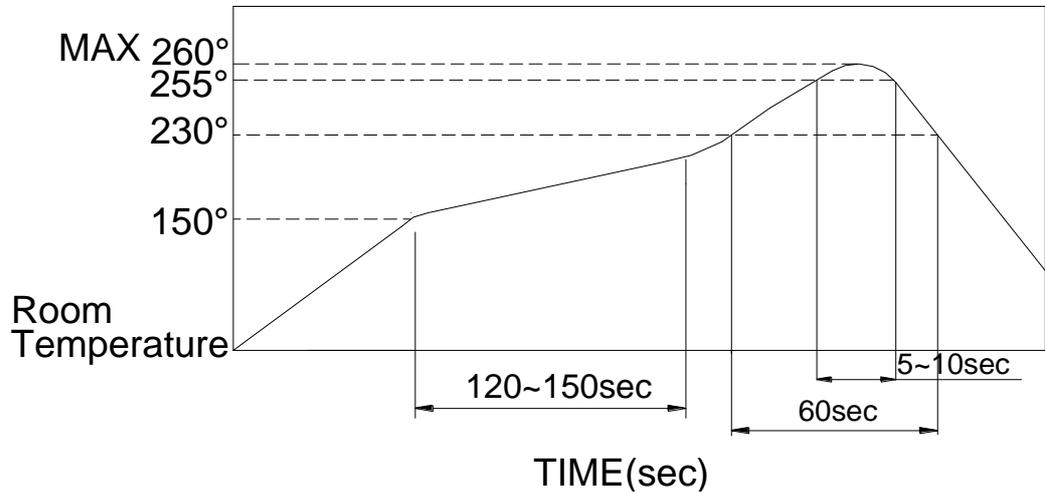
REV. : B

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	11	Shock	<p>Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F</p> <ol style="list-style-type: none"> 1) Acceleration; 50G 2) Action time: 11±1m seconds 3) Testing Direction: 6 sides 4) Test Cycle: 3 times in each direction 	Ditto	
DURABILITY	12	Operating Life	<p>Measurements shall be made following the test forth below:</p> <ol style="list-style-type: none"> 1) 5 mA, 5 VDC resistive load 2) Applying a static load the operating force to the center of the stem in the direction of operation 3) Cycle of Operation: <ul style="list-style-type: none"> 1,000,000 cycles Min~100、160gf 500,000 cycles Min~200、260gf 200,000 cycles Min~360gf 	<ol style="list-style-type: none"> 1) As shown in item 4、5 2) Operating force: ±50% of initial force. 3) Contact Resistance: 10Ω Max 4) Insulation Resistance: 10MΩ Min 5) Bounce: 20 m seconds Max 	
	WEATHER-PROOF	13	Resistance Low Temperature	<p>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:</p> <ol style="list-style-type: none"> 1) Temperature: -40±2°C 2) Time: 96 hours 	<ol style="list-style-type: none"> 1) As shown in item 4~6 2) Contact Resistance: 200mΩ Max 3) Insulation Resistance: 10MΩ Min
		14	Heat Resistance	<p>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:</p> <ol style="list-style-type: none"> 1) Temperature: 90±2°C 2) Time: 96 hours 	Ditto
15		Humidity Resistance	<p>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:</p> <ol style="list-style-type: none"> 1) Temperature: 60±2°C 2) Relative Humidity: 90~95% 3) Time: 96 hours 	Ditto	

5. SOLDERING CONDITIONS:

■ Condition for Soldering T4BJ Series



- The condition mentioned above is the temperature on the Cu foil of the PCB surface. There are cases where board's temperature greatly differs from switch's surface be used not to allow switch's surface temperature to exceed 260°C .

■ Manual Soldering

Soldering Temperature	350°C MAX.
Continuous Soldering Time	5 second MAX.

■ Precautions in Handling

1. Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.
2. Except for washable type do not wash the switch.

■ Notes on storage conditions:

Do not store in the following environment or it may affect product's function and solderability:

1. temperature of -10 (max) ~ +40 (min) °C & humidity at 85% (min)
2. environment with corrosive gas
3. storage over 6 months
4. place of direct sunlight

Store with proper packaging conditions and to avoid loading heavy force

We suggest to use the products within 3 months or at least 6 months.

After opening the package, the rest products must be stored in the appropriate moisture-proof & airtight environment.