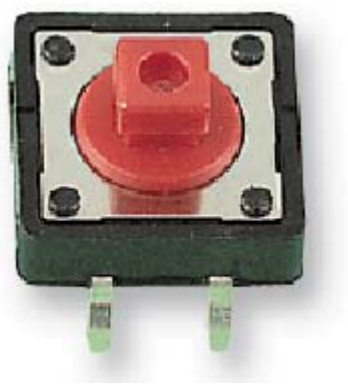
Tactile Switches

SPNO



Features:

- Sharp click feel with a positive tactile feedback. Due to small movement distance (stroke), user experiences distinct sensation when the switch “clicks” into place
- Ultra miniature and light weight structure suitable for high density mounting. Economic with high reliability
- Insert moulding in the contact has a special treatment which prevents flux build-up during soldering and permits auto-dipping
- Comprehensive range of SPNO tact switches
- Select by overall height, body, actuator length and operating force

Materials :

Cover	: Stainless steel
Base	: Nylon thermoplastic Colour : Black
Stem	: Nylon thermoplastic Colour : Black (100 gf), Brown (160 gf), Red (260 gf)
Contact disc	: Phosphor bronze with silver cladding
Terminal	: Brass with silver cladding
Cap	: Thermoplastic ABS

Specifications :

Mechanical

Operation Force	: 160 ±50 gf Brown (N) 260 ±50 gf Red (R) 100 ±50 gf Black (K) 350 g Salone (S)
Stop Strength	: Place the switch such that a vertical, static load of 3 kgf shall be applied in the direction of the stem operation for a period of 15 seconds
Stroke	: (12 × 12) 0.35 ±0.1 mm (6 × 6) 0.25 +0.2 / -0.1 mm
Operating Temperature	: -25°C to +70°C
Storage Temperature	: -30°C to +80°C
Vibration Test	: MIL-STD-202F method 201 A Frequency : 10 - 55 - 10 Hz / 1 minute Directions : X, Y, Z three mutually perpendicular directions Time : 2 hours each direction High reliability
Shock Test	: MIL-STD-202F method 213 B Condition A Gravity : 50 G (peak value), 11 msec Direction and Times : 6 sides and 3 times in each direction High reliability

Electrical

Electrical Life	: 260 gf has 50,000 cycles 100 gf, 160 gf has 500,000 cycles

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Specifications :

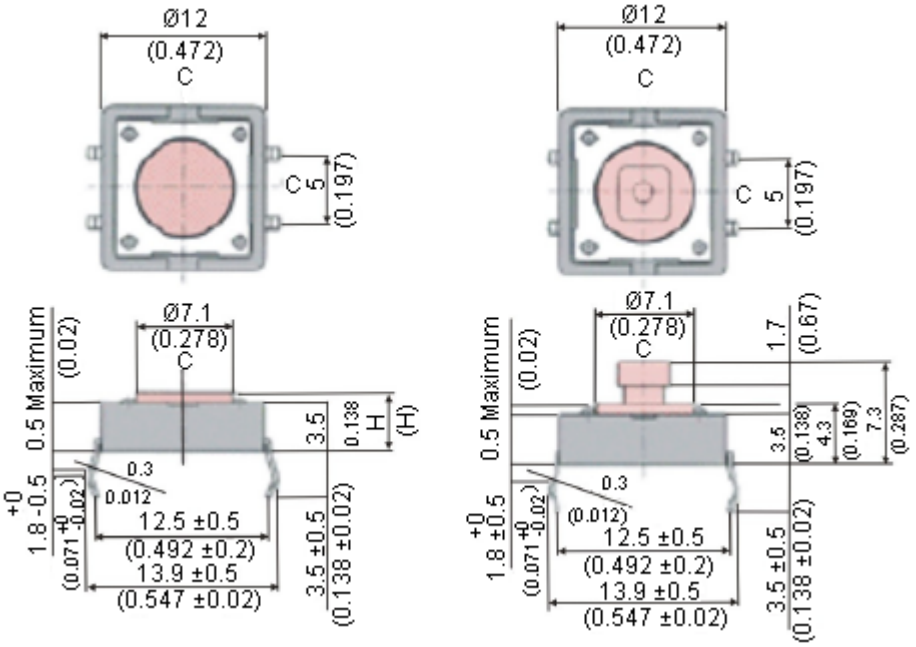
Electrical

Current Rating	: 50 mA, 12 V dc
Maximum Contact Resistance	: 100 mΩ
Insulation Resistance	: 10 MΩ 500 V dc
Dielectric Strength	: 250 V ac / 1 minute
Maximum Wave Solder	: 260°C 5 s 1.6 mm PCB
Hand Solder	: 320°C 2 s 30 W iron
PCB Hole Diameter	: 1 ±0.05 mm

Soldering Process

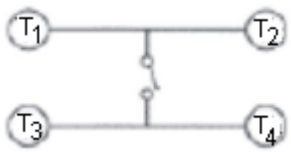
Wave Soldering : Recommended solder temperature at 500°F (260°C) maximum 5 seconds subject to PCB thickness of 1.6 mm
Hand Soldering : Use a soldering iron of 30 watts, controlled at 608°F (320°C) approximately for 2 seconds while applying solder

MCDTS-2

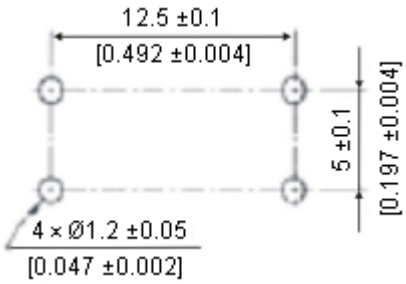


Dimensions : Millimetres (Unless Specified)

Circuit



P.C.B. Layout



Dimensions : Millimetres (Inches)

Specification Table (12 mm × 12 mm)

Actuator Style / Operating Force (gf)	PCB Drilling	Part Number
7.3 (SQ) × 3.8 / 160	12.5 × 5	MCDTS2-4N

Dimensions : Millimetres (Unless Specified)

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