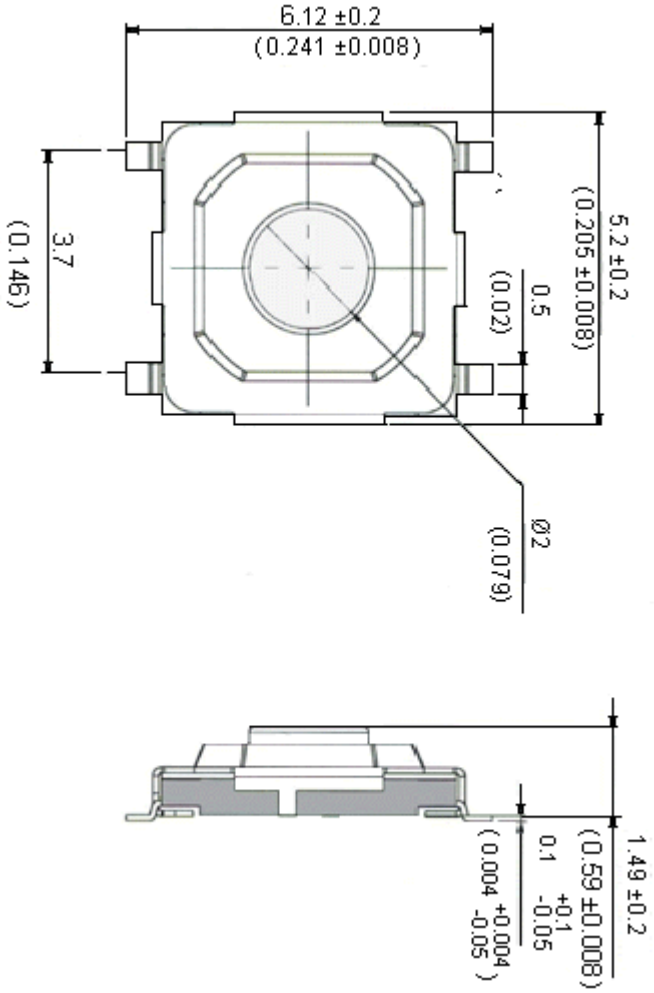
TM-533-T/R

TACT Switch

Features

- Sharp click feel with a positive tactile feed-back. Due to small movement distance (stroke), user experiences distinct sensation when the switch clicks into place
- Ultraminiature and light weight structure suitable for high density mounting. Economic but high reliability
- Insert moulding in the contact with special treatment prevents flux build-up during soldering and permits auto-dipping

TM- 533



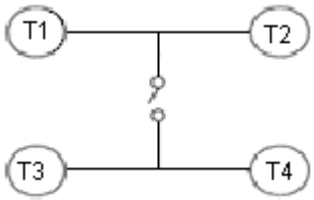
General Tolerance: ± 0.2 mm (± 0.008 inches)

Dimensions : Millimetres (Inches)

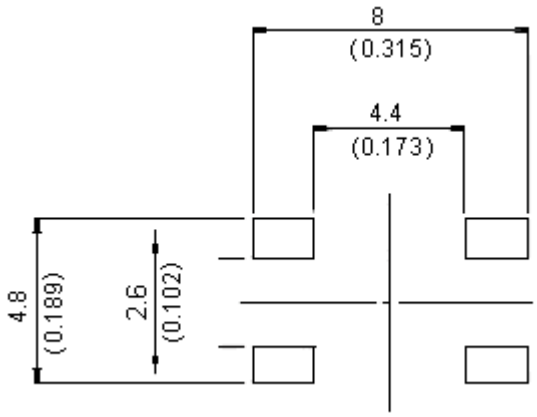
TM-533-T/R

TACT Switch

Circuit Diagram



PCB Layout



Materials

Cover	: Stainless steel
Contact Disc	: Phosphor bronze with silver cladding
Terminal	: Brass with silver cladding
Base	: LCP High-temperature thermoplastic Colour : Black
Stem	: Brass

Specifications

Mechanical

Operation Force	: 160 ±50 gf
Stop Strength	: Place the switch such that vertical, a static load of 3 kgf shall be applied in the direction of stem operation for a period of 15 seconds
Stroke	: 0.25 (+0.2 mm / -0.1 mm)
Operating Temperature Range	: -25°C to +70°C
Storage Temperature Range	: -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

TM-533-T/R

TACT Switch

Specifications

Mechanical

Shock Test : MIL-STD-202F Method 213B
Condition A
Gravity : 50 G (peak value), 11 milliseconds
Direction and times : 6 sides and 3 times in each direction
High reliability

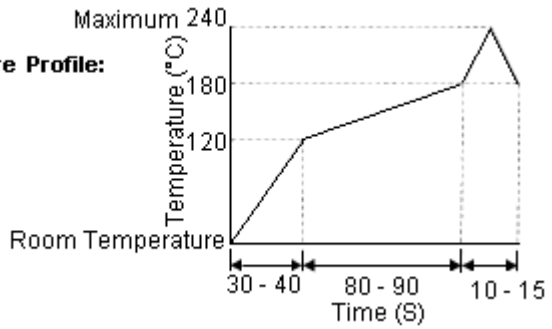
Electrical

Electrical Life : 300,000 cycles minimum
Contact Resistance : 100 mΩ maximum
Insulation Resistance : 100 mΩ minimum at 500 V dc
Dielectric Strength : 250 V ac/1 minute
Contact Arrangement : 1 Pole 1 throw

Soldering Process

Wave Soldering : Recommended solder temperature at 500°F (260°C) maximum 5 seconds subject to PCB 1.6 mm thickness. (Soldering for through hole type)
Hand Soldering : Use a soldering iron of 30 watts, controlled at 608°F (320°C) approximately 2 seconds while applying solder
Soldering : Vapour phase and IR-reflow soldering can be applied
Condition for Soldering (Reflow and non-washable type)

Temperature Profile:



Part Number Table

Description	Part Number
TACTILE SWITCH, SPNO, SMD	TM-533I-Q-T/R

Item	Description	Materials	Treatment	Remarks
1	Stem	SPCC-SD	Ni Plating	-
2	Cover	□ = Nickel Silver S = Stainless Steel	□ = None S = With Silver Plating	-
3	Adhesive Tape	Teflon	None	-
4	Terminal	Phosphor Bronze	With Silver Plating	-
5	Contact	Stainless Steel	With Silver Cladding	-
6	Base	High – Temperature Thermoplastic LCP	Moulded Black	-

TM-533-T/R

TACT Switch

Part Number Explanation:

T	M	-	5	3	3	I	-	Q	-	T/R
Termination Type	Gull Wing		5 x 5 mm	Total H	1.5 mm	Stem Materials SPCC (for total H:1.5 mm)		Halogen Free		Package

Termination Type:
M = Gull Wing
Total Height : 3 = 1.5 mm
Operating Force : 3 = 160 g