



## SERIES: TS19 | DESCRIPTION: TACTILE SWITCH

### FEATURES

- surface mount
- IP67
- 100K & 300K life cycle options



### SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
rated voltage		1		12	Vdc
rated current		0.01		50	mA
withstanding voltage	for 1 minute		100		Vac
contact resistance	applying load of 2 times operating force at 5 Vdc, 10 mA			500	mΩ
insulation resistance	at 100 Vdc for 1 minute	100			MΩ
operating force	see force table				
actuator travel	70 gf models	0.05	0.10	0.15	mm
	120 gf models	0.06	0.11	0.16	mm
	180 & 240 gf models	0.08	0.13	0.18	mm
operating temperature		-30		85	°C
storage temperature		-40		90	°C
life	rated load, 60 cycles/min, 1.5 times operating force				
	100,000 cycle models		100,000		cycles
	300,000 cycle models		300,000		cycles
vibration	10~55~10 Hz, 1.5 mm amplitude, 2 hours on each XYZ				
flammability rating	see material table				
RoHS	yes				
IP level	IP67				

### PART NUMBER KEY

**TS19 - 32 - 06 - BK - XXX - X - SMT - TR -67**

Base Number

Push Force:  
 \*70 = 70 gf  
 120 = 120 gf  
 180 = 180 gf  
 240 = 240 gf

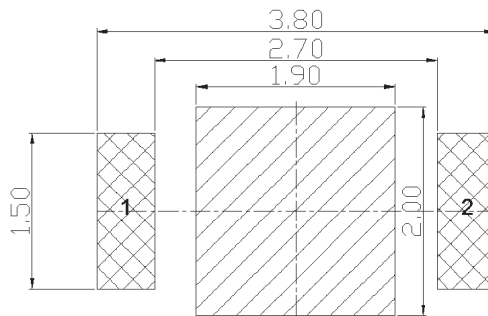
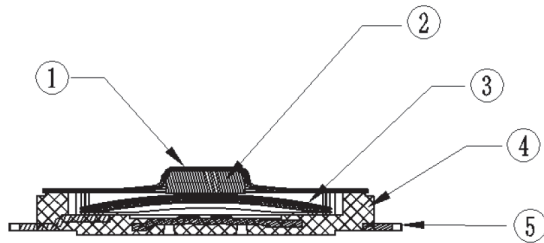
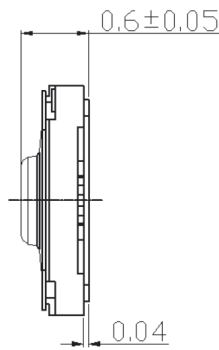
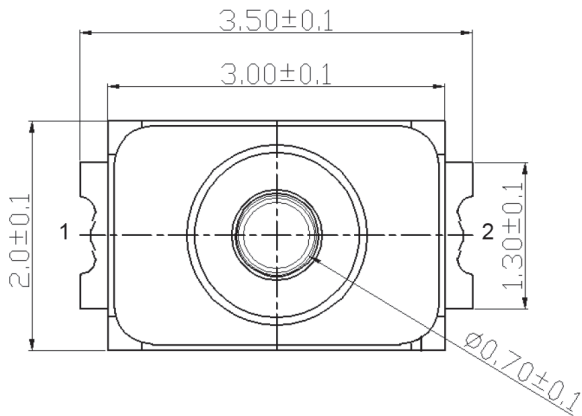
Life Cycles:  
 1=100,000 cycles  
 3=300,000 cycles

Note: \*Only available with 100,000 cycle life.

## MECHANICAL DRAWING

units: mm  
 tolerance: ±0.1 mm  
 unless otherwise noted

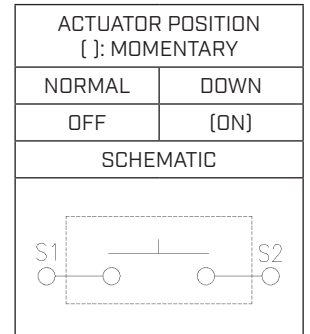
ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
1	membrane	PA	natural
2	push	PA	black
3	contacts	SUS	silver
4	case	PA	black
5	terminals	copper	silver



: Land Pattern Area

: Brazing Prohibited Area

Recommended PCB Layout  
 Top View



Model	Press Force [gf]	Return Force [gf]
70	70±50	>20
120	120±50	>20
180	180±50	>20
240	240±50	>20

## SOLDERABILITY

parameter	conditions/description	min	typ	max	units
hand soldering	for maximum 3 seconds			350	°C
reflow soldering <sup>1</sup>	see reflow profile			260	°C

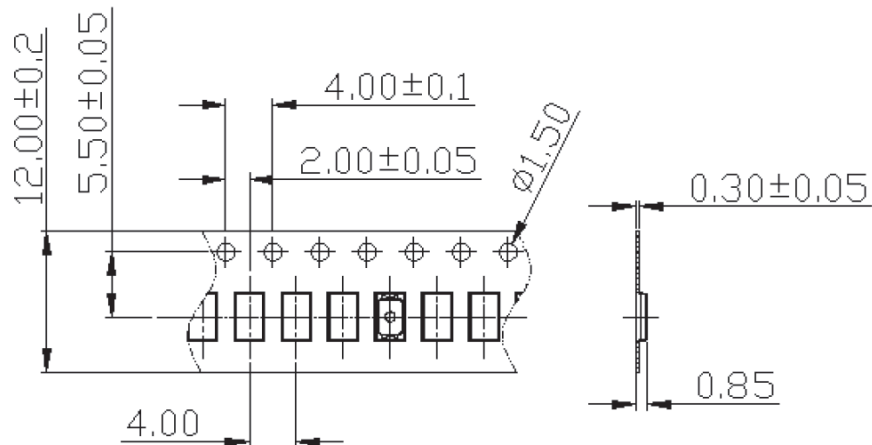
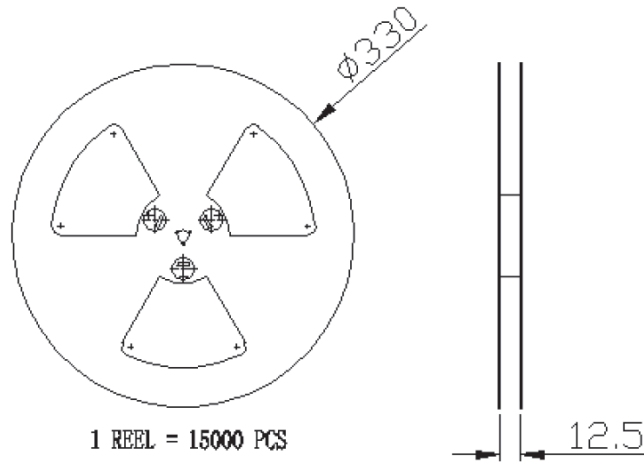
Notes: 1. Do not exceed 2 reflow cycles.



## PACKAGING

units: mm

Reel Size:  $\varnothing 330$  mm  
 Reel QTY: 15,000 pcs per reel  
 Carton Size: 440 x 350 x 350 mm  
 Carton QTY: 225,000 pcs per carton



## REVISION HISTORY

rev.	description	date
1.0	initial release	05/10/2022
1.01	logo, datasheet style update	08/05/2022

The revision history provided is for informational purposes only and is believed to be accurate.



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