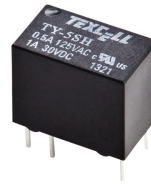


Subminiature Signal Relay	TY
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**Features**

- 1 Form C (SPDT-NO) configuration
- Max. 2A switching capability
- High sensitive: 150mW
- Plastic sealed type



**UL US**  
(File No.:E122258)

1. COIL DATA (at 23°C)

1) Standard Type

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max Allowable Voltage (VDC)	Coil Current (mA)(±10%)	Coil Resistance (Ω)	Coil Power (mW)
1.5	1.20	0.15	2.25	133.3	11.3 x (1±10%)	200
3	2.40	0.30	4.50	66.7	45 x (1±10%)	
5	4.00	0.50	7.50	40.0	125 x (1±10%)	
6	4.80	0.60	9.00	33.3	180 x (1±10%)	
9	7.20	0.90	13.5	22.2	405 x (1±10%)	
12	9.60	1.20	18.0	16.7	720 x (1±10%)	
24	19.2	2.40	36.0	8.33	2880 x (1±15%)	

2) Sensitive Type

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max Allowable Voltage (VDC)	Coil Current (mA)(±10%)	Coil Resistance (Ω)	Coil Power (mW)
1.5	1.20	0.15	2.25	100	15 x (1±10%)	150
3	2.40	0.30	4.50	50.0	60 x (1±10%)	
5	4.00	0.50	7.50	30.0	167 x (1±10%)	
6	4.80	0.60	9.00	25.0	240 x (1±10%)	
9	7.20	0.90	13.5	16.7	540 x (1±10%)	
12	9.60	1.20	18.0	12.5	960 x (1±10%)	
24	19.2	2.40	36.0	6.25	3840 x (1±15%)	

## 2. CONTACT DATA

Contact Arrangement	1 Form C (SPDT-NO)	
Contact Resistance	100mΩ max. (at 0.1A 6VDC)	
Contact Material	AgNi + Au plated	
Contact Ratings (Resistive Load)	0.5A 125VAC / 1A 30VDC	
Max. Switching Voltage	125VAC / 60VDC	
Max. Switching Current	2A	
Max. Switching Power	62.5VA / 30W	
Min. Applicable Load*	1mA 5V	
Life Expectancy	Electrical	100,000 (30 operations/min)
	Mechanical	10,000,000 (300 operations/min)

**Notes:** \*Minimum applicable load is reference value. Please perform the confirmation test with the actual load before production since reference value may change according to switching frequencies, environmental conditions, expected contact resistance and reliability.

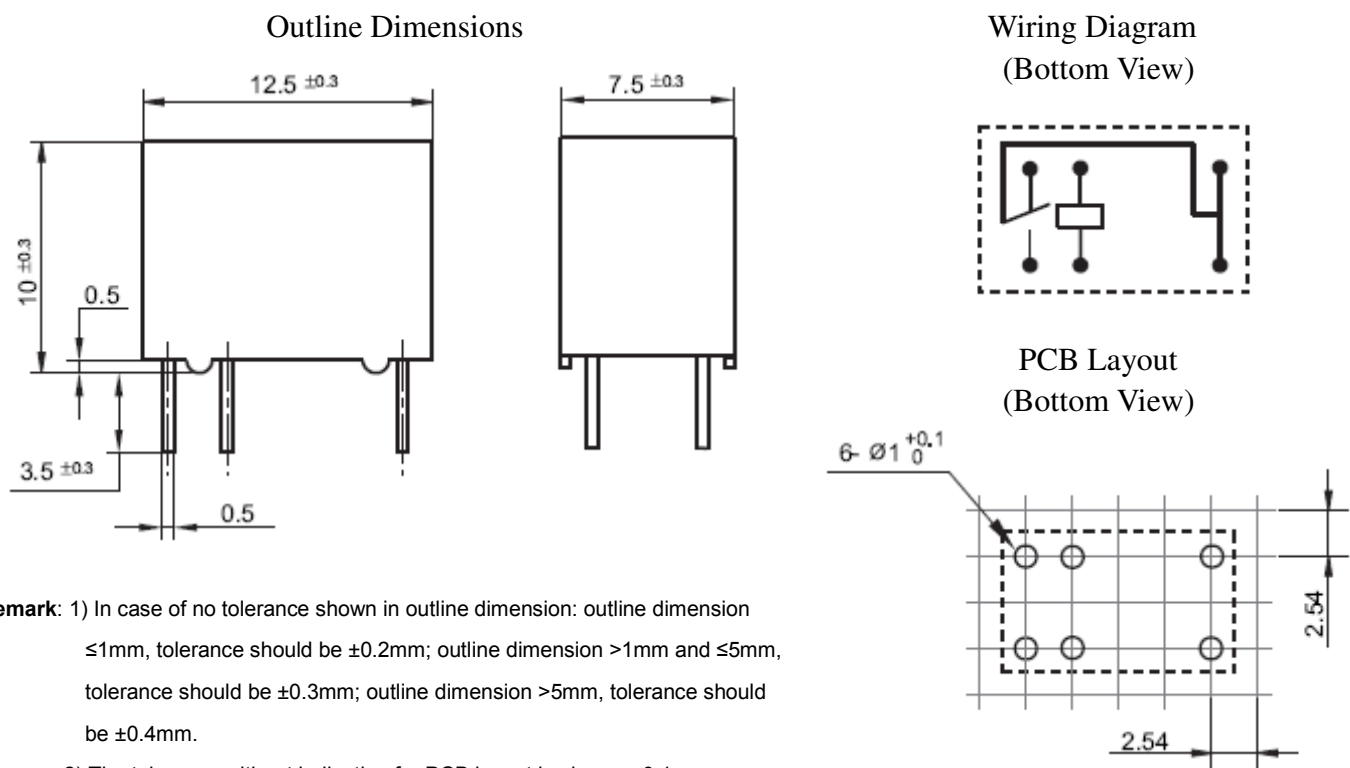
## 3. CHARACTERISTICS

Insulation Resistance	1000MΩ (at 500VDC)	
Dielectric Strength	Open Contacts	400VAC 1min
	Contacts and Coil	1000VAC 1min
Operate Time (at nominal voltage)	5ms max.	
Release Time (at nominal voltage)	5ms max.	
Bounce Time (at nominal voltage)	Approx. 5ms	
Temperature Rise (at nominal voltage)	65K max.	
Temperature Range	-30°C ~ 70°C	
Shock Resistance	98 m/s <sup>2</sup>	
Vibration Resistance	10 ~ 55Hz, 3.3mm DA	
Humidity	5 ~ 85% RH	
Termination	PCB (DIP)	
Weight	Approx. 2.2g	
Outline Dimension (L x W x H)	12.5 x 7.5 x 10.0 mm	

#### 4. ORDERING INFORMATION

<u>TY</u>	-	<u>12</u>	<u>S</u>	<u>H</u>
①		②	③	④
① Relay Model		TY		
② Coil Voltage		1.5=1.5VDC, 3=3VDC, 5=5VDC, 6=6VDC, 9=9VDC, 12=12VDC, 24=24VDC		
③ Construction		S: Sealed Type		
④ Coil Power		Nil: Standard Type (200mW) H: Sensitive Type (150mW)		

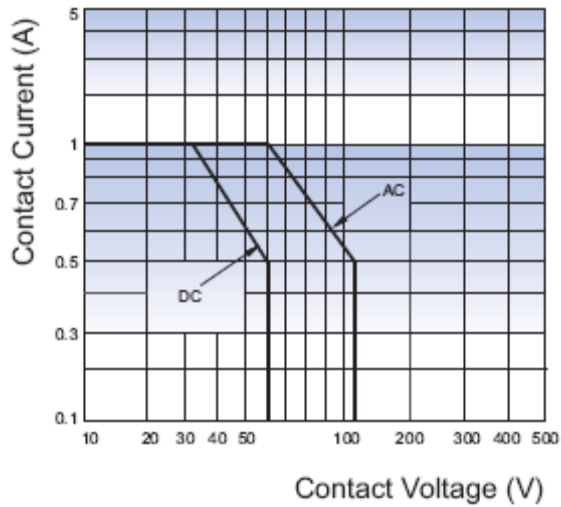
#### 5. DIMENSIONS (Unit: mm)



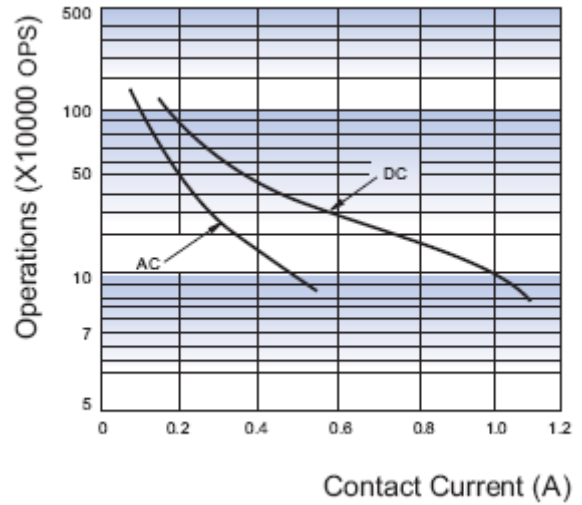
- Remark:**
- 1) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $> 5\text{mm}$ , tolerance should be  $\pm 0.4\text{mm}$ .
  - 2) The tolerance without indicating for PCB layout is always  $\pm 0.1\text{mm}$
  - 3) The width of the gridding is  $2.54\text{mm}$

## 6. CHARACTERISTIC CURVES

Maximum Switching Power



Endurance Curve



### Notice

- 1) To avoid using relays under strong magnetic field which will change the parameters of relays such as pick-up voltage and drop-out voltage.
- 2) The relay may be damaged because of falling or when shocking conditions exceed the requirement.
- 3) Regarding the plastic sealed relay, we should leave it cooling naturally until below 40°C after welding, then clean it and deal with coating, remarkably the temperature of solvents should also be controlled below 40°C. Please avoid cleaning the relay by ultrasonic, avoid using the solvents like gasoline, freon, and so on, which would affect the configuration of relay or influence the environment.