

## Features

- 10A switching capability
- Creepage distance and air distance are >6mm
- Normally open type is UL certificated by TV-5 125VAC, 78A inrush current
- UL insulation system: Class F
- Environment-friendly product (RoHS compliant)
- Outline Dimensions: (24.0×11.0×25.0)mm
- Main application: Home appliance, Smart home



**TV-5** c **UL**® **US**

## ■ CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		1A
	Contact resistance(initial)		≤100mΩ(6VDC 1A)
	Contact material		AgSnO <sub>2</sub>
Rated value	Rated load(Resistance load)		5A 250VAC 10A 250VAC
	Max.switching voltage		277VAC
	Max.switching current		10A
	Max.switching capacity		2500VA
	Min.allowing load		5VDC 100mA
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open contacts	1000VAC, 1min
		Between coil&contacts	4000VAC, 1min
	Operate time		≤15ms
	Release time		≤5ms
Mechanical performance	Shock resistance	Functional	98m/s <sup>2</sup> (10g)
		Destructive	980m/s <sup>2</sup> (100g)
	Vibration resistance		10Hz~55Hz 1.5mm DA
Endurance	Mechanical		5×10 <sup>6</sup> ops
	Electrical(Room temperature)		5A 250VAC 1×10 <sup>5</sup> ops(ON/OFF=1s/9s) 10A 250VAC 5×10 <sup>4</sup> ops(ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~85℃
	Humidity		5% to 90%
Termination			PCB
Unit weight			Approx. 12g
Construction			Flux proofed

## COIL DATA(23°C)

Nominal Voltage	Operate Voltage VDC	Release Voltage VDC	Rated Current ( $\pm 10\%$ )	Coil Resistance ( $\pm 10\%$ )	Nominal Power	Max Voltage
DC 5V	$\leq 3.75$	$\geq 0.25$	50mA	100 $\Omega$	250mW	DC 6.5V
DC 9V	$\leq 6.75$	$\geq 0.45$	27.8mA	324 $\Omega$		DC 11.7V
DC 12V	$\leq 9.00$	$\geq 0.60$	20.8mA	576 $\Omega$		DC 15.6V
DC 24V	$\leq 18.00$	$\geq 1.20$	10.4mA	2304 $\Omega$		DC 31.2V

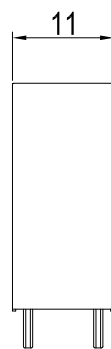
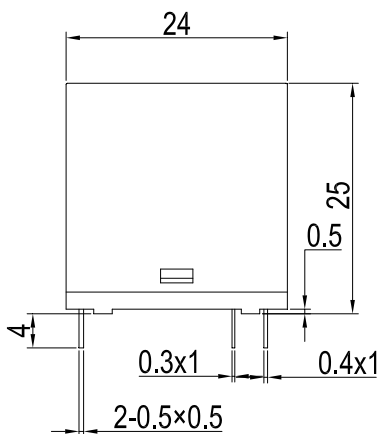
## ORDERING INFORMATION

W33 -1A T E -XXX DC12V

- ① Type
- ② Contact arrangement: 1A=1 open contacts
- ③ Contact material: T=AgSnO<sub>2</sub>
- ④ Load: Nil=Standard load E=High load(10A)
- ⑤ Customer special code: numbers or letters denote customer's requirements
- ⑥ Coil specification: DC5/9/12/24V

## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PCB BOARD LAYOUT (Unit:mm)

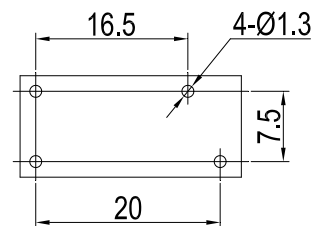
### 1A Outline Dimensions



### Wiring Diagram (Bottom view)



### PCB Layout (Bottom view)



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  $< 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $\geq 5\text{mm}$ , tolerance should be  $\pm 0.5\text{mm}$ .

(2) The tolerance without indicating for PCB layout is always  $\pm 0.1\text{mm}$ .

## ■ SAFETY APPROVAL RATINGS

Approval	File No.	Contact arrangement	Contact material	Approved ratings		
UL/C-UL	E475405	1A	AgSnO <sub>2</sub>	5A/10A	250VAC	85°C
				TV-5	125VAC	85°C
				TV-8	125VAC	85°C
TUV	R 50406989	1A	AgSnO <sub>2</sub>	5A/10A	250VAC	85°C
CQC	CQC18002188987	1A	AgSnO <sub>2</sub>	5A/10A	250VAC	85°C

## ■ NOTICE

- ① In order to maintain the initial performance parameters of the relay, please be careful not to drop the product;
- ② The specification is for reference only. Specifications subject to change without notice.