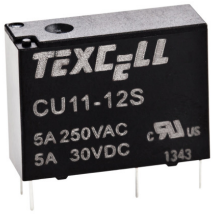
Subminiature Intermediate Power Relay	CU

Features

- 10A switching capability
- Highly efficient magnetic circuit for high sensitivity
- Meets reinforce insulation
- Meets VDE 0631 reinforce insulation
- Extremely small footprint utilizing PCB area



c UL us
(File No.:E134581)

1. COIL DATA (at 23°C)

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max Allowable Voltage (VDC)	Coil Resistance(Ω)(1±10%)		Coil Power(mW)	
				1 Form A	1 Form C	1A	1C
3	2.25	0.18	3.90	45	25	200	360
5	3.75	0.25	6.50	125	69		
6	4.50	0.30	7.80	180	100		
9	6.75	0.45	11.7	405	225		
12	9.00	0.60	15.6	720	400		
18	13.5	0.90	23.4	1620	900		
24	18.0	1.20	31.2	2880	1600		

Notes: 1) The data shown above are initial values.

2) The maximum allowable voltage refers to the maximum voltage which relay coil could endure in a short period of time.

2. CONTACT DATA

Contact Arrangement		1 Form A	1 Form C
Contact Resistance[1)]		100mΩ max. (at 1A 6VDC)	
Contact Material		AgNi	
Contact Ratings		3A 250VAC / 30VDC 5A 250VAC / 30VDC	5A 250VAC 10A 250VAC
Max. Switching Voltage		277VAC / 30VDC	277VAC
Max. Switching Current		5A	10A
Max. Switching Power		1,385VA / 150W	2770VA
Life Expectancy	Electrical	100,000 operations (at 5A 250VAC)	50,000 operations (at 5A 250VAC)
	Mechanical	5,000,000 operations	

Notes: 1) The data shown above are initial values

3. CHARACTERISTICS

Insulation Resistance		1000MΩ (at 500VDC)
Dielectric Strength	Open Contacts	1000VAC 1min
	Coil and Contacts	4000VAC 1min
Surge voltage (1 Form C) (between coil and movable contacts)		8kV(1.2 / 50μs)
Operate Time (at nominal voltage)		10ms max.
Release Time (at nominal voltage)		10ms max.
Temperature Range	1 form A	-40℃ ~ 85℃
	1 Form C	-40℃ ~ 105℃
Shock Resistance[1)]	Functional	98m/s^2
	Destructive	980m/s^2
Vibration Resistance[1)]		10 ~ 55Hz, 1.5mm DA
Humidity		5 ~ 85% RH
Termination		PCB
Weight	1 Form A	Approx. 3g
	1 Form C	Approx. 4.5g
Outline Dimension (L x W x H)	1 Form A	20.5 x 7.0 x 15.3mm
	1 Form C	23.4 x 7.0 x 15.3mm

Note: 1) Shock malfunction: 49 m/s^2 for the length direction.

Vibration: 10Hz to 55Hz 1mm DA for the length direction.

2) The data shown above are initial values.

3) UL insulation system: Class F, Class B

4. SAFETY APPROVAL RATINGS

Safety Standard	Contact Arrangement	Contact Rating
UL/cUL	1 Form A	5A 125VAC/250VAC at 85℃ 5A 277VAC/30VDC at 85℃ 3A 125VAC/250VAC at 85℃ 3A 277VAC/30VDC at 85℃
	1 Form C	5A 250VAC at 85℃ 10A 250VAC at 105℃

Notes:

1) All values unspecified are at room temperature.

2) Only typical loads are listed above. Other load specifications can be available upon request.

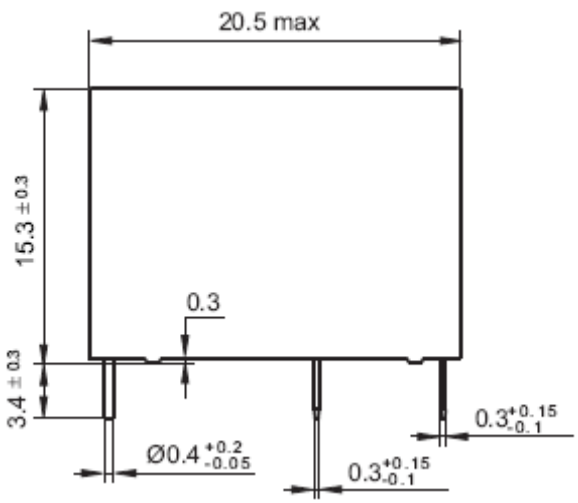
5. ORDERING INFORMATION

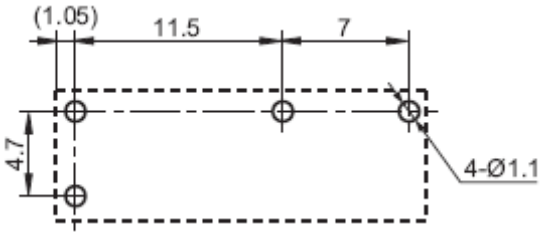
CU ①	11 ②	-	12 ③	S ④	N ⑤
① Relay Model	CU				
② Contact Arrangement	11: 1 Form A (SPST-NO) 1: 1 Form C (SPDT)				
③ Coil Voltage	3=3VDC, 5=5VDC, 6=6VDC, 9=9VDC, 12=12VDC, 18=18VDC, 24=24VDC				
④ Construction	S: Plastic sealed				
⑤ Contact Material	Nil: AgNi for 1 Form A N: AgNi for 1 Form C				

6. DIMENSIONS (Unit: mm)

1) 1 Form A

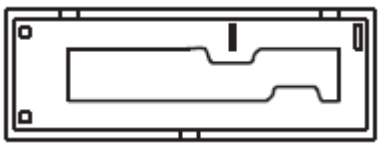
Outline Dimensions





PCB Layout (Bottom View)

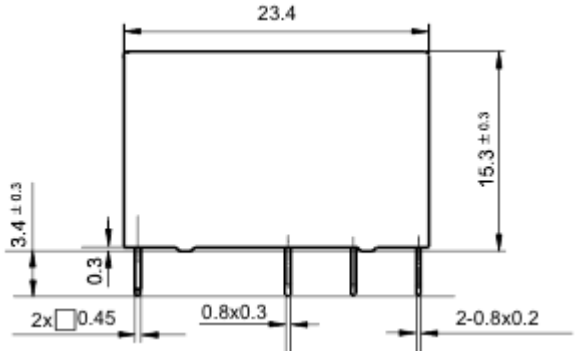
Wiring Diagram (Bottom View)

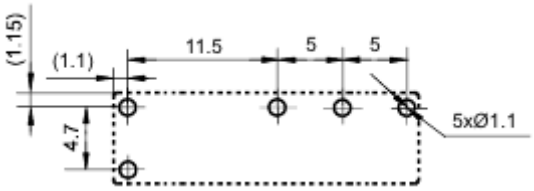


Bottom View

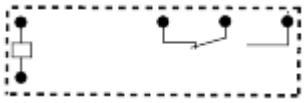
2) 1 Form C

Outline Dimensions





PCB Layout (Bottom View)



Wiring Diagram (Bottom View)

Remark:

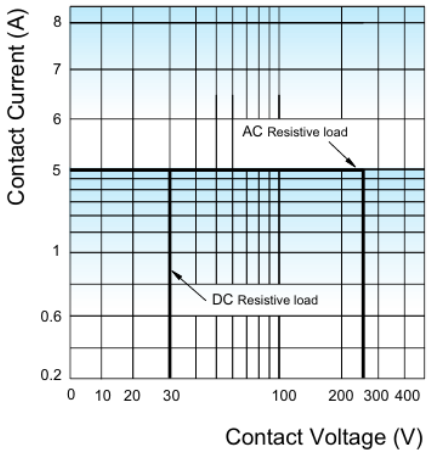
1) The pin dimension of the product outline drawing is the size before tinning (it will become larger after tinning), and the mounting hole size is the recommended design size of the PCB board hole. The specific PCB board hole design size can be mapped and adjusted according to the actual product.

2) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

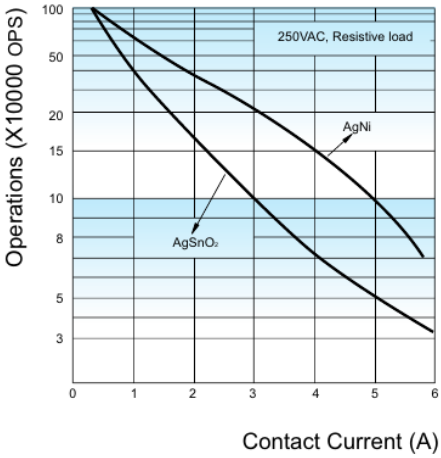
3) The tolerance without indicating for PCB layout is always ±0.1mm.

7. CHARACTERISTIC CURVES (1 Form A)

Maximum Switching Power



Endurance Curve Coil



Temperature Rise