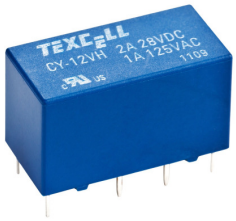
Subminiature DIP Relay	CY

Features

- Matching 16 pins IC socket
- Bifurcated contacts
- Gold overlay contact
- 2 Form C (DPDT) configuration
- High switching capacity: 125VA/60W
- Epoxy sealed for automatic-wave soldering and cleaning



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1. COIL DATA (at 23°C)

1) 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)
3	2.25	0.3	6	66.7	45 x (1±10%)	200
5	3.75	0.5	10	40.0	125 x (1±10%)	
6	4.50	0.6	12	33.3	180 x (1±10%)	
9	6.80	0.9	18	22.2	405 x (1±10%)	
12	9.00	1.2	24	16.7	720 x (1±10%)	
15	11.3	1.5	30	13.3	1125 x (1±10%)	
24	18.0	2.4	48	8.33	2880 x (1±10%)	

2) High 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)
3	2.4	0.3	7	50.0	60 x (1±10%)	150
5	4.0	0.5	11.5	30.0	167 x (1±10%)	
6	4.8	0.6	13.8	25.0	240 x (1±10%)	
9	7.2	0.9	20.8	16.7	540 x (1±10%)	
12	9.6	1.2	27.7	12.5	960 x (1±10%)	
15	12.0	1.5	34.6	10.0	1500 x (1±10%)	
24	19.2	2.4	55.2	6.25	3840 x (1±10%)	

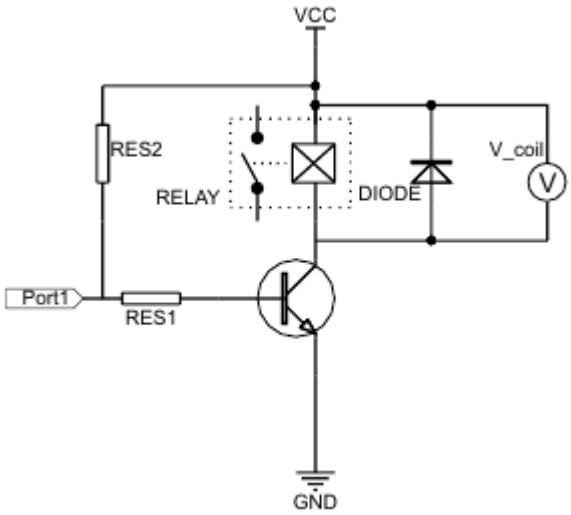
Note:

1) The data shown above are initial values.

2) To supply rated step voltage to coil is the foundation of relay proper operation.

Please make sure the applied voltage to the coil reach at rated values.

Please refer to the typical diagram below for single side stable relay. The “V_coil” is the rated voltage:



3) In case 5V of transistor drive circuit, it is recommended to use 4.5V type relay, and 3V to use 2.4V type relay.

4) For monostable relays, if you need to drop down voltage and hold mode after reliably operating, make sure that the effective value of holding voltage is not less than 60% of the rated voltage.

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

6) When user’s requirements can’t be found in the above table, special order allowed.

7) During the relay pick-up or drop-out processes, there are stages of contact pressure change, contact vibration and unstable contact etc. When the voltage applied to coil is gradually changed. It will lengthen the unstable stage and affect relay endurance. To reduce this influence, please apply step voltage(switching circuit) to relay coil.

2. CONTACT DATA

Contact Arrangement		2 Form C (DPDT)
Contact Resistance		100mΩ max. (at 10mA 30mVDC)
Contact Material		AgNi + Au plated
Contact Ratings (Resistive Load)		1A 125VAC / 2A 30VDC
Max. Switching Voltage		240VAC / 120VDC
Max. Switching Current		2A
Max. Switching Power		125VA / 60W
Min. Applicable Load[1)]		10mV 10μA
Life Expectancy[2)]	Electrical	100,000 operations
	Mechanical	100,000,000 operations

Notes:

1) 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.

2) Life expectancy data are collected in one pair CO contact test.

3. CHARACTERISTICS

Insulation Resistance		1000MΩ (at 500VDC)
Dielectric Strength	Open Contacts	Sensitive type: 1000VAC 1min High sensitive type: 750VAC 1mm
	Coil and Contacts	1500VAC 1min
Operate Time (at nominal voltage)		7ms max.
Release Time (at nominal voltage)		4ms max.
Temperature Rise		65K max.
Temperature Range		-40℃ ~ 85℃
Shock Resistance	Functional	196 m/s^2
	Destructive	980 m/s^2
Vibration Resistance		10 ~ 55Hz, 1.5mm DA
Humidity		5 ~ 85% RH
Termination		PCB (DIP)
Weight		Approx. 5g
Outline Dimension (L x W x H)		20.2 x 10.0 x 11.5mm

Notes:

1) The data shown above are initial values.

2) UL insulation system: Class A

4. SAFETY APPROVAL RATINGS

Safety Standard	Contact Form	Contact Rating
UL/cUL	2 Form C	1A 125VAC 2A 30VDC

Notes:

1) All values unspecified are at 85℃

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

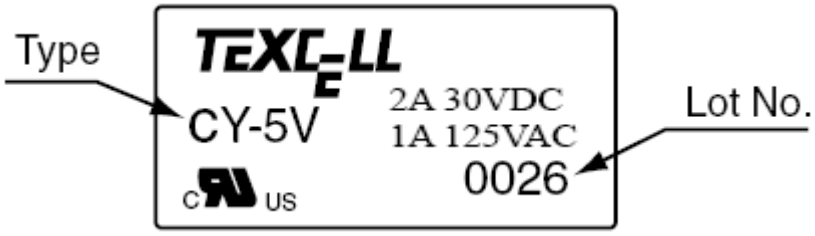
5. ORDERING INFORMATION

CY - 5V H ① ② ③	
① Relay Model	CY
② Coil Voltage	3V=3VDC, 5V=5VDC, 6V=6VDC, 9V=9VDC, 12V=12VDC, 15V=15VDC, 24V=24VDC
③ Coil Power	Nil: Sensitive type (200mW) H: High-sensitive type (150mW)

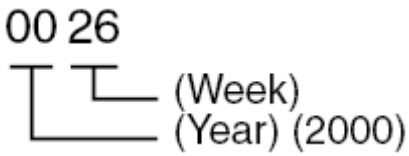
6. DIMENSIONS (Unit: mm)

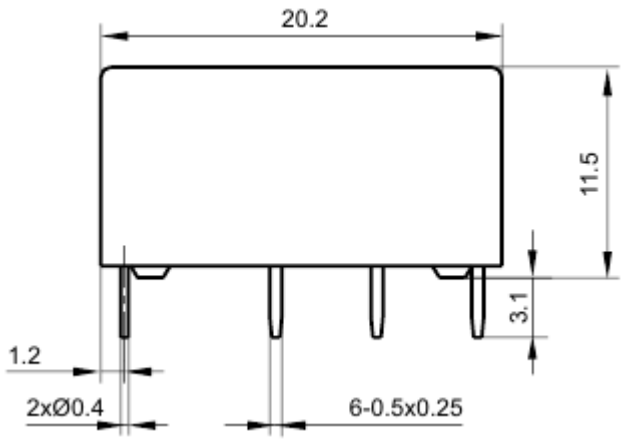
Outline Dimensions

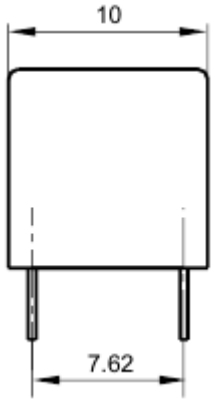
An illustration of indication



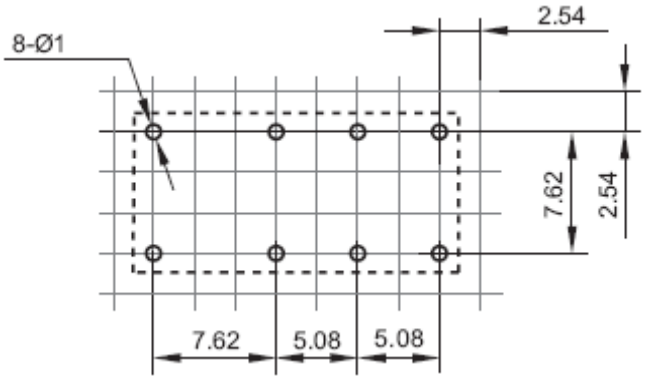
An illustration of Lot No.



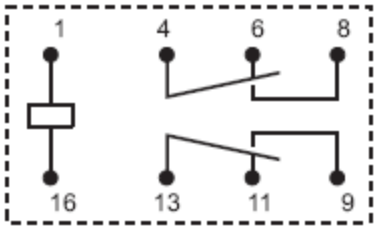




PCB Layout (Bottom View)



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 can be mapped and adjusted according to the actual product.

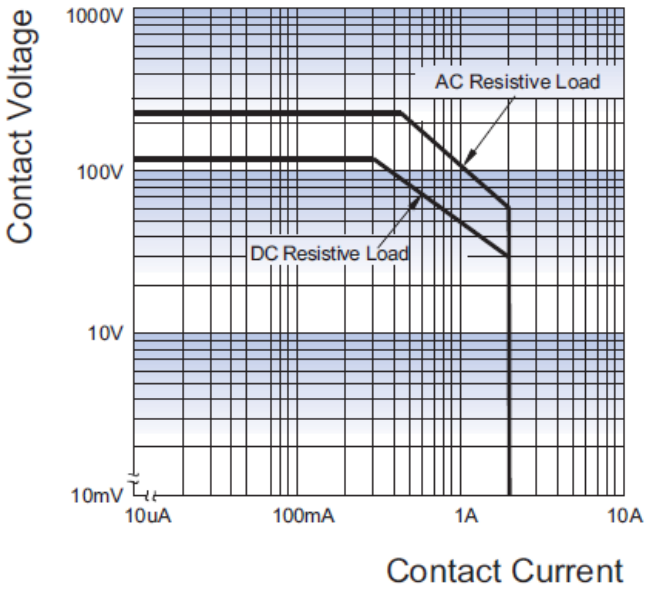
2) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

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

4) The width of the gridding is 2.54mm.

7. CHARACTERISTIC CURVES

Maximum Switching Power



Endurance Curve