Subminiature Intermediate Power Relay	CK

Features

- 10A switching capability
- TV-5 125VAC approved by UL standard (only for 1 Form A)
- Available 117A inrush current
  Available 20A 277VAC switching capability
  Available 16A 250VAC switching capability
  (Please consult with TEXCELL)
- 1 Form A and 1 Form C configurations
- Sealed type

c US
(File No.: E134581)

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)
5	3.75	0.25	6.50	106	47 x (1±10%)	Approx. 530
6	4.50	0.30	7.80	88.3	68 x (1±10%)	
9	6.75	0.45	11.7	58.9	155 x (1±10%)	
12	9.00	0.60	15.6	44.2	270 x (1±10%)	
18	13.5	0.90	23.4	29.4	620 x (1±10%)	
24	18.0	1.20	31.2	22.1	1080 x (1±10%)	
48	36.0	2.40	62.4	11	4400 x (1±10%)	

2) Sensitive type (Only for 1 Form A)

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)
5	3.75	0.25	6.50	50	100 x (1±10%)	Approx. 250
6	4.50	0.30	7.80	41.7	145 x (1±10%)	
9	6.75	0.45	11.7	27.8	325 x (1±10%)	
12	9.00	0.60	15.6	20.8	575 x (1±10%)	
18	13.5	0.90	23.4	13.9	1300 x (1±10%)	
24	18.0	1.20	31.2	10.4	2310 x (1±10%)	

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		$AgSnO_2$
Contact Ratings		10A 250VAC 10A 30VDC TV-5 125VAC
Max. Switching Voltage		250VAC / 30VDC
Max. Switching Current		10A
Max. Switching Power		2500VA / 300W
Life Expectancy	Electrical	50,000 operations (at 10A 250VAC)
	Mechanical	10,000,000 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	NO: 4000VAC 1min NC: 3000VAC 1min
Operate Time (at nominal voltage)		15ms max.
Release Time (at nominal voltage)		5ms max.
Temperature Range		-40℃ ~ 70℃
Shock Resistance	Functional	$196m/s^2$
	Destructive	$980m/s^2$
Vibration Resistance		10 ~ 55Hz, 1.5mm DA
Humidity		5 ~ 85% RH
Termination		PCB
Weight		Approx. 12g
Outline Dimension (L x W x H)		24.5 x 10.5 x 24.5mm

Notes:

1) The data shown above are initial values.

2) Please find coil temperature curve in the characteristic curves below.

3) UL insulation system: Class A

4. SAFETY APPROVAL RATINGS

UL / cUL	1 Form A	10A 250VAC 10A 30VDC TV-5 125VAC
	1 Form C	10A 250VAC / 30VDC

Notes: 1) All values unspecified are at room temperature.

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

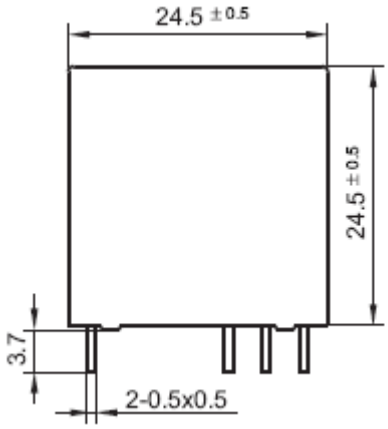
5. ORDERING INFORMATION

CK ①	11 ②	-	H ③	12 ④	S ⑤	H ⑥

① Relay Model	CK
② Contact Arrangement	11: 1 Form A (SPST-NO) 1: 1 Form C (SPDT)
③ Contact Current	H: 10A
④ Coil Voltage	5=5VDC, 6=6VDC, 9=9VDC, 12=12VDC, 18=18VDC, 24=24VDC, 48=48VDC
⑤ Construction	S: Sealed Type
⑥ Coil Power	Nil: Standard type H: Sensitive type (Only for 1 Form A)

6. DIMENSIONS (Unit: mm)

Outline Dimensions

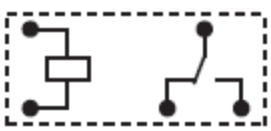


1 Form A

1 Form C

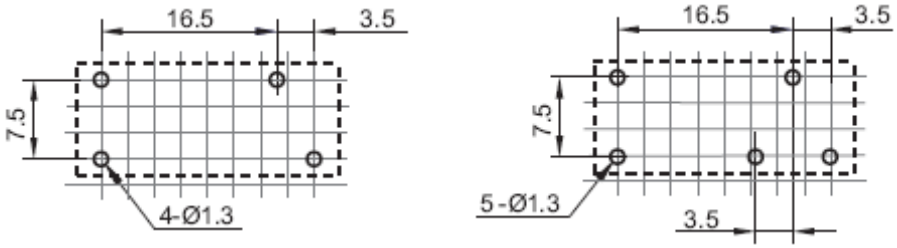
Wiring Diagram (Bottom View)

1 Form A



1 Form C

PCB Layout (Bottom view)



1 Form A　　1 Form C

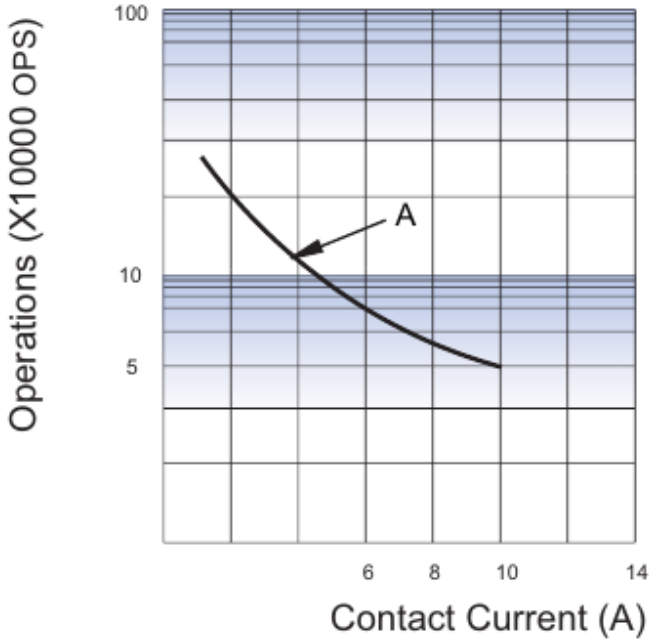
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

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

3) The width of the gridding is 2.54mm.

7. CHARACTERISTIC CURVES

Endurance Curve



Curve A: 1 Form A type

Coil Temperature Rise