Miniature High Power Relay	NCT

Features

- High switching capacity
  : 40A for 1 Form A and 1 Form C
- Ideal for heavy duty load
- AC/DC coil relay
- Without common terminal
- Low coil consumption
- Miniature, PCB terminal



c UL us
(File No.:E122258)

1. COIL DATA (at 23°C)

1) DC 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	3.30	310	10 x (1±10%)	930
5	3.75	0.5	5.50	186	27 x (1±10%)	
6	4.50	0.6	6.60	155	39 x (1±10%)	
9	6.75	0.9	9.90	103	87 x (1±10%)	
12	9	1.2	13.2	77.5	155 x (1±10%)	
24	18	2.4	26.4	39	619 x (1±10%)	
36	27	3.6	39.6	26	1394 x (1±10%)	
48	36	4.8	52.8	19	2477 x (1±10%)	
110	82.5	11	121	8.46	13000 x (1±10%)	

2) AC Type

Nominal Voltage (VAC)	Pick-up Voltage (VAC)	Drop-out Voltage (VAC)	Max Allowable Voltage (VAC)	Coil Current (mA)(±10%)	Coil Resistance (Ω)	Coil Power (VA)
12	9.6	3.6	13.2	125	33.6 x (1±10%)	1.5
24	19.2	7.2	26.4	63	135 x (1±10%)	
48	38.4	14.4	52.8	31	538 x (1±10%)	
110	88	33	121	14	2820 x (1±10%)	
220	176	66	242	7	11300 x (1±10%)	
240	192	72	264	6	13440 x (1±10%)	

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2. CONTACT DATA

Contact Arrangement		1 Form A	1 Form B	1 Form C	
				NO	NC
Contact Resistance		100mΩ max.			
Contact Material		$AgSnO_2$			
Contact rating	Standard (Nil type)	30A 250VAC 30A 28VDC	20A 250VAC 20A 28VDC	30A 250VAC 30A 28VDC	20A 250VAC 20A 28VDC
	High Capacity (H type)	40A 277VAC 40A 30VDC	30A 277VAC 30A 30VDC	40A 277VAC 40A 30VDC	30A 277VAC 30A 30VDC
Max. Switching Voltage		277VAC / 30VDC			
Life Expectancy	Electrical	100,000 operations			
	Mechanical	10,000,000 operations			

3. CHARACTERISTICS

Insulation Resistance		100MΩ (at 500VDC)
Dielectric Strength	Open Contacts	1800VAC for 1min.
	Coil and Contacts	2500VAC for 1min.*
Temperature Range		-55℃ ~ 70℃
Shock Resistance	Destruction	$300m/s^2$ (approx.. 30G)
	Malfunction	$100m/s^2$ (approx.. 10G)
Vibration Resistance		10 ~ 55Hz, 0.75mm double amplitude
Operate Time (at nominal voltage)		15ms max. (for DC type)
Release Time (at nominal voltage)		10ms max. (for DC type)
Humidity		35 ~ 80% RH
Termination		PCB
Weight		Approx. 24g
Outline Dimension (L x W x H)		32.0 x 27.5 x 19.8mm

Notes:* When user requires dielectric strength 4500VAC between coil and contacts, special order allowed. Please consult with TEXCELL.

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4. ORDERING INFORMATION

NCT ①	11 ②	-	D12 ③	S ④	H ⑤

① Relay Model	NCT
② Contact Arrangement	11: 1 Form A (SPST-NO) 1B: 1 Form B (SPST-NC) 1: 1 Form C (SPDT)
③ Coil Voltage	DC: D3=3VDC, D5-5VDC, D6=6VDC, D9=9VDC, D12=12VDC, D24=24VDC, D36=36VDC, D48=48VDC, D110=110VDC AC: A12=12VAC, A24=24VAC, A48=48VAC, A110=110VAC, A220=220VAC, A240=240VAC
④ Construction	S: Plastic sealed type
⑤ Contact Rating	Nil: 30A (Standard) H: 40A (High Capacity)

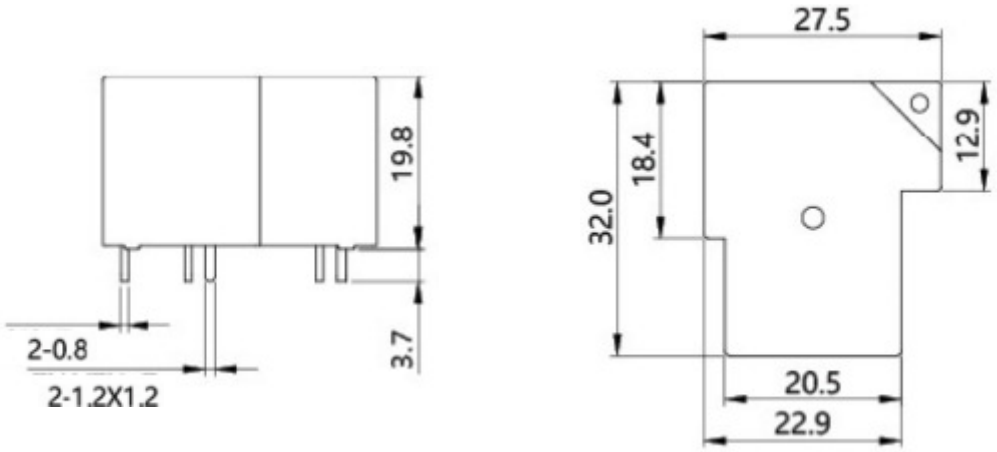
5. SAFETY APPROVAL RATINGS

UL/cUL	NO contact	Standard: 30A 250VAC, 30A 28VDC High Capacity: 40A 277VAC, 40A 30VDC, 2HP 277VAC
	NC contact	Standard: 20A 250VAC, 20A 28VDC High Capacity: 30A 277VAC, 30A 30VDC

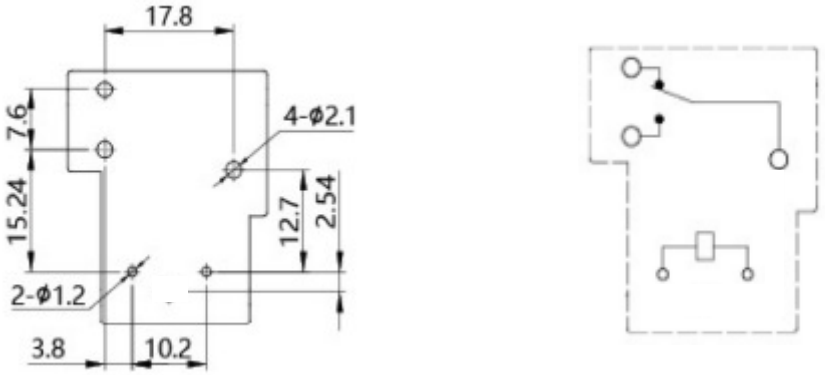
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6. DIMENSIONS (Unit: mm)

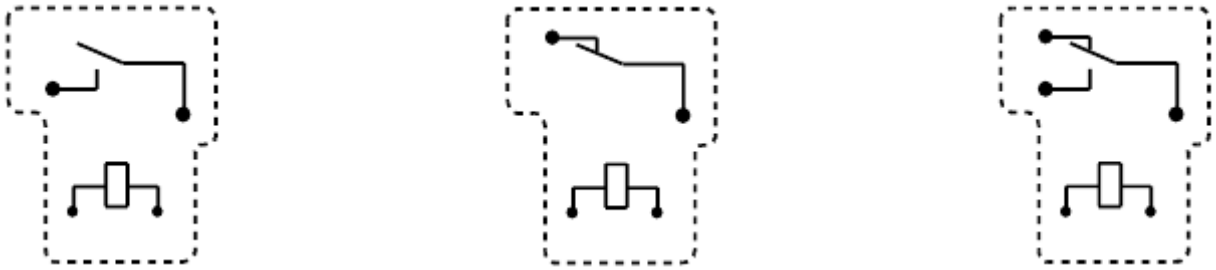
Outline Dimensions



PCB Layout
(Bottom View)



Wiring Diagram (Bottom View)



1 Form A　　1 Form B　　1 Form C

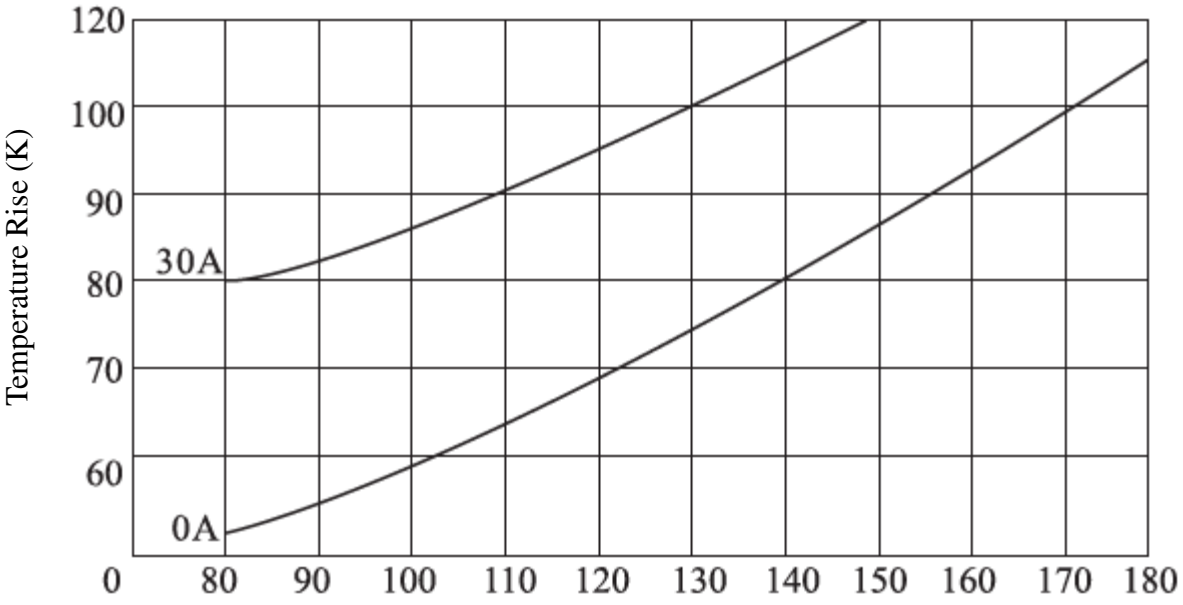
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

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

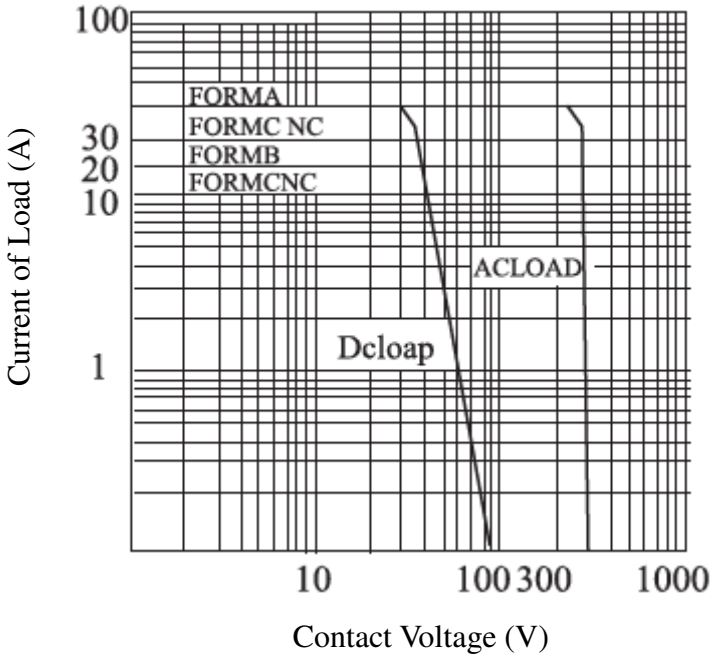
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7. CHARACTERISTIC CURVES

Coil Temperature Rise



Maximum Switching Power



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