

FEATURES

- 30A switching use relay at ambient temperature of 85°
- Solder lug (quick connect) and PCB terminals are available for customer's selection.
- Contact form: 1 form C, 1 Form B, 1 Form A, and 2 Form A
- Using at automotives, direct connection with cell motors, transmission, and anti-locking braking system.



ORDERING INFORMATION

LD — 12 F

1 2 3 4 5 6

1. Type

2. Contact Arrangement

Nil : 1 Form C
1A : 1 Form A
1B : 1 Form B
2A : 2 Form A
2AU

3. Coil Nominal Voltage

4. Cover Type

F : Cover for Steel Bracket
P : Cover for Plastic Bracket
B : Plastic Cover

5. Terminal Type

Nil : Standard Type
P : PCB Terminal

6. Special Mark

Nil : Standard Type.

R : Coil parallel with 1/2W resistor 820Ω for 12VDC, 3200Ω for 24VDC.
D1 : Coil parallel with diode 1N4007 the Positive pole "+" on # 85 terminal.
D2 : Coil parallel with diode 1N4007 the Negative pole "-" on # 85 terminal.

CONTACT RATING

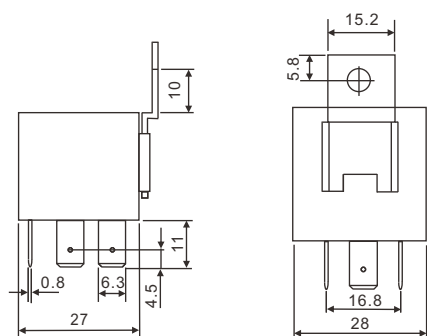
1 Form C	Resistive (Cos.θ = 1)	DC 14V	40A/30A
2 Form A	Resistive (Cos.θ = 1)	DC 14V	2 x30A

COIL DATA(1.8W, at 25°C)

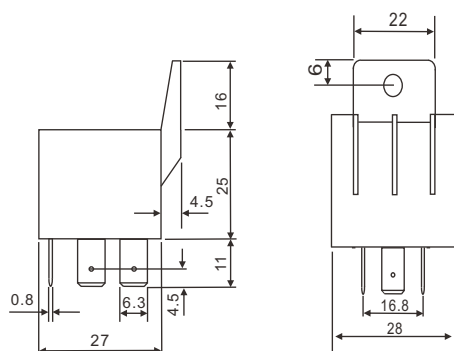
Coil Nominal Voltage (VDC)	Resistance Tol.±10% (Ohms)	Nominal Current (mA)	Maximum Pick Up Voltage (V)	Minimum Drop Out Voltage (V)
5	14	357	3.5	0.5
12	80	150	8.4	1.2
24	320	75	16.8	2.4

DIMENSIONS(±0.2mm)

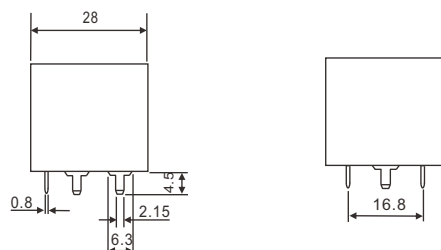
F TYPE



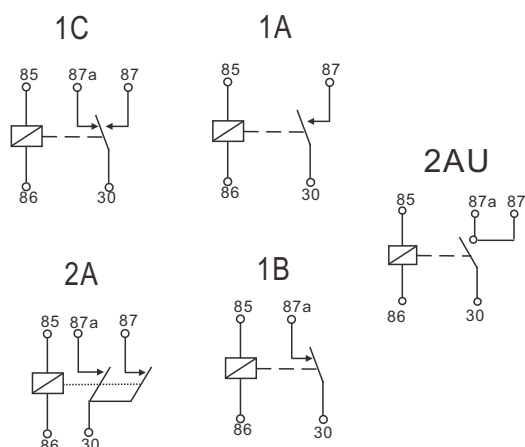
P TYPE



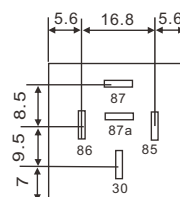
B TYPE



WIRING DIAGRAM (BOTTOM VIEW)



P.C.B LAYOUT (BOTTOM VIEW)



GENERAL DATA

Insulation Resistance	50 MΩ Min. (DC 500V)
Dielectric Strength	500 VAC, 50/60Hz between contact.
	1,000 VAC, 50/60Hz between all elements.
Contact Material	Ag Alloy.
Contact Resistance	100 milliohms max. (initial value)
Shock Resistance	Malfunction: 10G(11ms) ; Destructive: 100G(6ms)
Vibration Resistance	Malfunction: 10 to 55 Hz. at Double Amplitude of 1.5 mm
	Destructive: 10 to 55 Hz. at Double Amplitude of 1.5 mm
Operation Time	10 ms max.
Release Time	10 ms max.
Temperature Range	- 40°C ~ + 85°C
Expected Life	With operation rate 30/min.
	Mechanical - 1,000,000 operations min.
	Electrical - 100,000 operations min. at rated load.
Weight	32 grams