
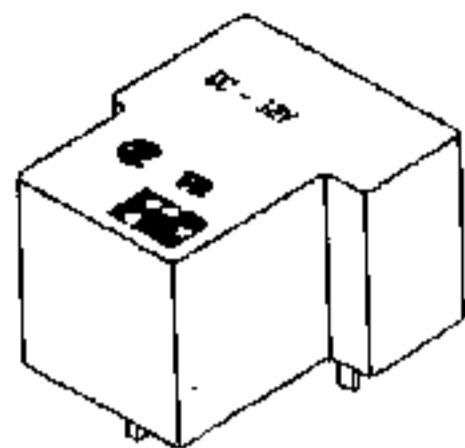


## FEATURES

- Miniature high power designed for mounting on P.C. board
- High contact rating(10-40A), high shock/vibration resistance
- High reliability and long life
- High temperature design "F" Class +155°C is available.
- Ideal for use in control car, air conditioner, home appliance, etc.
- Open type, different dust cover types or sealed type

 Recognized

 Recognized



## SPECIFICATIONS

## COIL RATING

	RATED VOLTAGE (V)	COIL RESISTANCE $\Omega$ +/- 10 %	MUST OPERATE VOLTAGE	MUST DROPOUT VOLTAGE	MAXIMUM VOLTAGE	POWER CONSUMPTION
			% OF RATED VOLTAGE (AT +20°C)			
DC	5	28	75 Max.	10 Min.	120 Max.	0.9 Approx. (W)
	6	40				
	9	90				
	12	160				
	18	360				
	24	640				
	48	2560				
	110	13445				
AC	12	27	85 Max.	20 Min.	120 Max.	2.0 Approx. (VA)
	24	120				
	110	2360				
	120	3040				
	220/240	13490				

## CHARACTERISTICS

Contact Arrangement	SPST (1 Form A or 1 Form B); SPDT (1 FORM C)
Contact Material	Silver Alloy
Contact Resistance	50m $\Omega$ Max.
Contact Rating (Resistive Load)	(see Figure 1)
Switching Voltage	DC 125V Max. AC 250V Max.
Operate Time	10ms Max.
Release Time	8ms Max.
Insulation Resistance	1000M $\Omega$ Min. (500V DC)
Dielectric Strength	1500V AC 50Hz, 1 minute between open contacts 1500V AC 50Hz, 1 minute between coil and contact ("R" type 2500V AC)
Shock Resistance	20g Approx.
Vibration Resistance	1.5mm, 10-55Hz Double Amplitude
Ambient Temperature	Storage : -55°C to 130°C      Operation : -55°C to +85°C
Humidity	20 - 85% RH
Operation Life	Mechanical : 10 <sup>7</sup> Electrical : 10 <sup>6</sup> (At rated load)
Weight	22g Approx. (Open Type)      28g Approx. (Sealed Type)

[Specifications are subject to change without notice.]

**FIGURE 1**

**A1 UL/CSA RATING TYPE**

	Form A	Form B	Form C	
	50/60 Hz	50/60Hz	50/60 Hz	
	NO	NC	NO	NC
Resistive	10A 240V AC	5A 240V AC	10A 240V AC	5A 240V AC
Tungsten	5A 240V AC	3A 240V AC	5A 240V AC	3A 240V AC
hp	1hp,125VAC; 2hp,240VAC		1/2hp,125VAC. 1hp,240VAC	
Coil Rating: 5-120V DC				

**A1H UL/CSA RATING TYPE**

	Form A	Form B	Form C		Cycles
	50/60 Hz	50/60Hz	50/60 Hz		
	NO	NC	NO	NC	
Resistive	30A 14VDC/ 240VAC	30A 14VDC / 10A 240VAC	30A 14VDC/ 240VAC	30A 14VDC/ 10A 240VAC	100K
Tungsten	15A,120V AC				30k
hp	1hp/16 FLA/120V	30 LRA/10FLA/120V	1hp/16 FLA/120V	30 LRA/10FLA/120V	30K
	2hp/12 FLA/240V	30 LRA/10FLA/240V	2hp/12 FLA/240V	30 LRA/10FLA/240V	30K
Coil Ratings: 5-120V DC					

**A1N UL/cUL (\* Pending) RATING TYPE**

	Form A	Form B	Form C		Cycles
	50/60 Hz	50/60Hz	50/60Hz		
	NO	NC	NO	NC	
Resistive	40A 30VDC/240VAC	30A 30VDC/240VAC	40A 30VDC/240VAC	30A 30VDC/240VAC	100K
Coil Ratings : 5 - 120VDC					

**ORDERING INFORMATION**

**A1 R H C - S - DC12V F**

NIL : CLASS "B" INSULATION 130°C  
 F : CLASS "F" INSULATION 155°C

RATED VOLTAGE : 5-120V DC or 12-220/240V AC

NIL : OPEN TYPE  
 E : DUST COVER <EPOXY BASE>  
 D : DUST COVER <SEPARATE COVER>  
 S : SEALED TYPE <WASHABLE>

CONTACT ARRANGEMENT ————  
 A = 1 FORM A  
 B = 1 FORM B  
 C = 1 FORM C

NIL : GENERAL CAPACITY (10A)  
 H : HIGH CAPACITY (30A)  
 N : NEW HIGH CAPACITY (40A)

**R** : CUT PIN TYPE

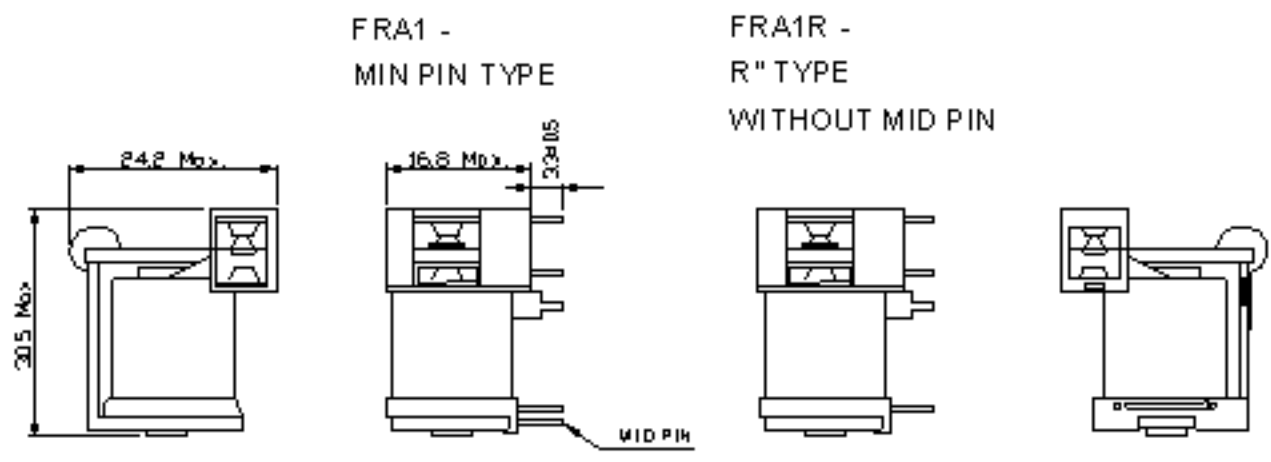
\* NOTE : AC COIL VOLTAGE IS ONLY AVAILABLE WITH CUTPIN TYPE.

**Nil** : WITH MID PIN

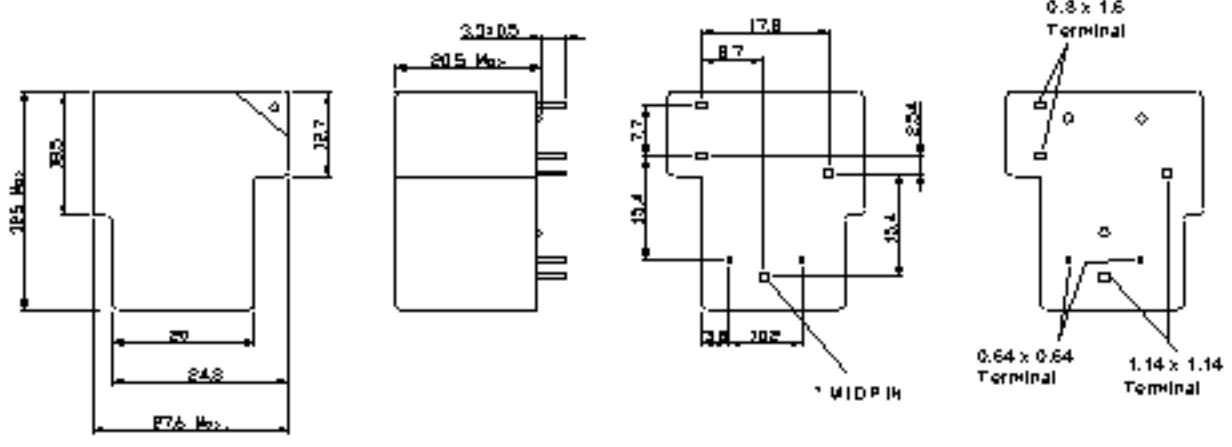
RELAY MODEL

## DIMENSIONS (UNIT : mm)

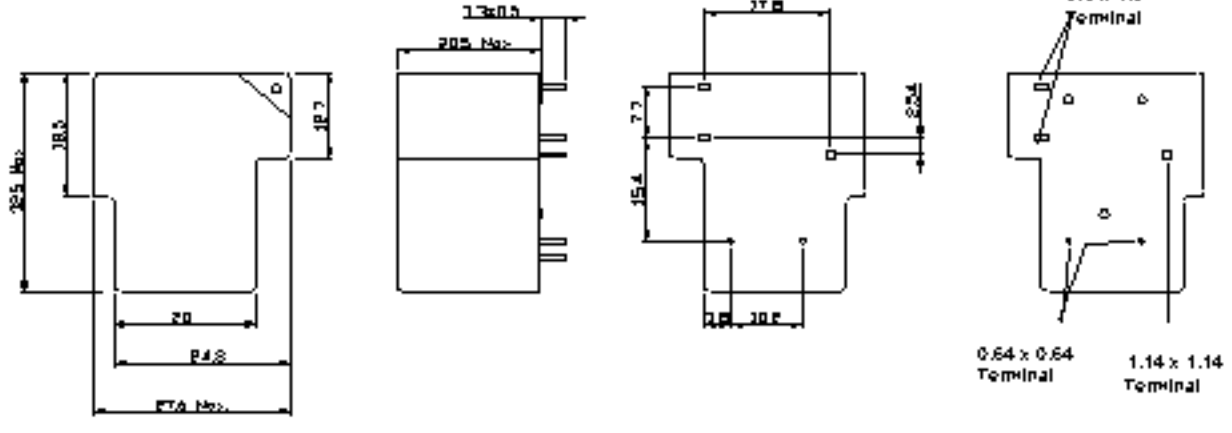
### A1 (OPEN TYPE)



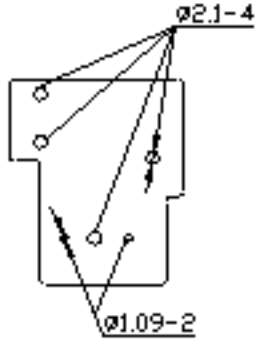
### A1 DUST COVER / SEALED TYPE - WITH MID PIN



### A1R DUST COVER / SEALED TYPE - CUT PIN TYPE



### MOUNTING HOLES



### TERMINAL ARRANGEMENT

