



### ■ Features

- 20A switching capability
- Small size auto relay
- Conform to RoHS,ELV directive

### ■ Ordering Code

HJR-78F					D	S	Z	/ 12VDC
1	2	3	4	5				
1. Relay Model	2. Coil Power: D=0.8W, L=0.6W		3. S: Sealed					
4. Contact Form: Z: Form C, B: Form B, H: Form A		5. Coil Nominal Voltage: 6, 9, 12, 24VDC						

### ■ Coil Data (at 20°C)

Nominal Voltage(VDC)	6	9	12	24	0.6W
Coil Resistance( $\Omega \pm 10\%$ )	60	135	240	960	
Rated Current(mA)	100	66.7	50	25	
Max Operate Voltage(VDC)	3.9	5.85	7.8	15.6	
Min Release Voltage(VDC)	0.48	0.72	0.96	1.92	0.8W
Coil Resistance( $\Omega \pm 10\%$ )	45	100	180	720	
Rated Current(mA)	133.3	88.9	66.7	33.3	
Max Operate Voltage(VDC)	3.9	5.85	7.8	15.6	
Min Release Voltage(VDC)	0.48	0.72	0.96	1.92	
Max Applicable Voltage	130% of nominal voltage at 70°C, 170% of nominal voltage at 23°C				

### ■ Contact Data

Contact Form	1H/1Z/1B
Contact Material	Silver Alloy
Load	Resistive Load(COS $\phi$ =1)
Contact Ratings	NO: 20A 14VDC NC: 12A 14VDC 1Z: 7A 120VAC
Minimum Load	100mA 5VDC
Max Switching Voltage	250VAC/16VDC
Max Switching Current	25A
Max Switching Power	840VA/280W
Contact Resistance	100m $\Omega$ Max at 6VDC 1A
Life Expectancy	Electrical: 100,000 Operations (at 30 Operations/minute)
	Mechanical: 10,000,000 Operations (at 300 Operations/minute)

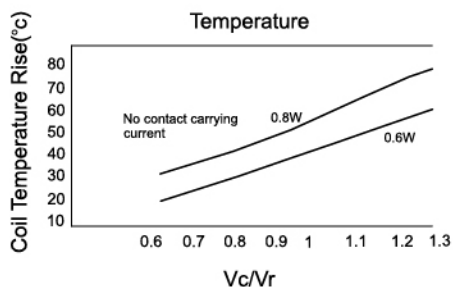
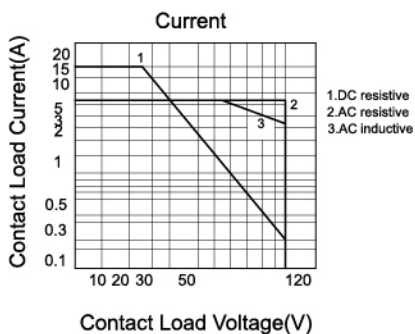
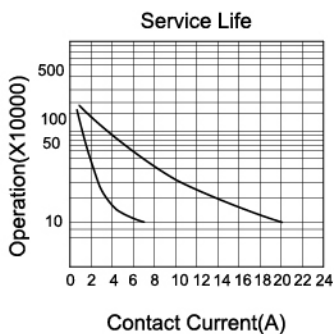
## ■ Characteristics Data

Insulation Resistance	100MΩMin at 500VDC
Dielectric Strength Between Open Contacts	500VAC (for one minute)
Between Contacts and Coil	500VAC (for one minute)
Operate Time	10ms
Release Time	5ms
Temperature Range	-40°C to +85°C
Shock Resistance	Operating Extremes: 10G Damage Limits: 100G
Vibration Resistance	10-55Hz, 1.5mm
Max. Switching Frequency	Mechanical: 18,000 operations/hr Electrical: 1,800 operations/hr
Humidity	35-85%
Weight	Approx: 6g
Safety Standard	UL cUL

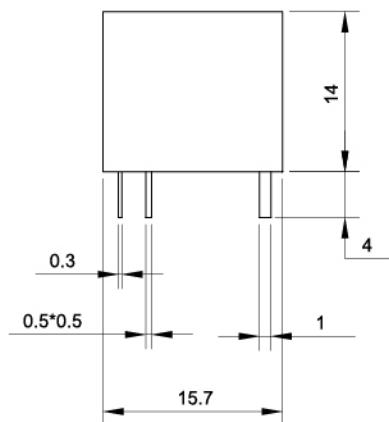
## ■ Approved Standards

Model	Coil Rating	Safety Standard	Contact Rating
HJR-78F	6 to 24VDC	UL/cUL	NO/NC:20A/12A 14VDC
			7A 120VAC

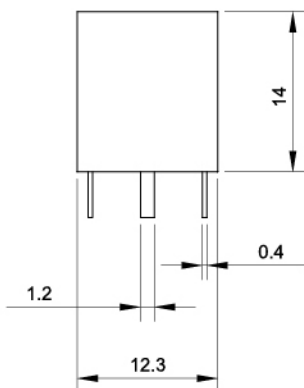
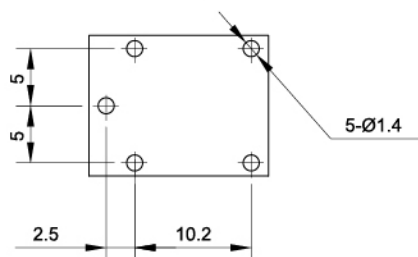
## ■ Engineering Data



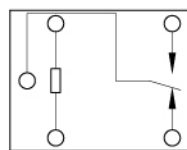
## ■ Overall and Mounting Dimensions



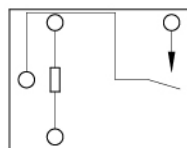
PCB Layout



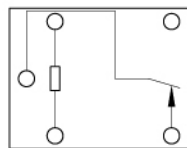
Wiring Diagram



Form C



Form A



Form B

### Remark:

- 1). In case the tolerance is not shown in outline dimension, the tolerance should be  $\pm 0.2\text{mm}$  for outline dimension  $\leq 1\text{mm}$ ;  $\pm 0.3\text{mm}$  for outline dimension:  $1\sim 5\text{mm}$  and  $\pm 0.4\text{mm}$  for outline dimension  $> 5\text{mm}$ .
- 2). The tolerance without indication is always  $\pm 0.1\text{mm}$  for the dimension of PCB layout.

### Disclaimer:

These specifications are just for customers' reference and subject to change without notice.