

**MAIN FEATURE**

1. Smaller size with the capability of 25A inrush current.
2. Applicable for automotive electrical systems.
3. Distinctive twin relay structure on JM-2 providing high performance for the use of automotive.
4. Resistance to environment with shock and vibration.
5. Comply with RoHS, REACH and ELV regulations.

**CONTACT RATING**

Load Type	JM-1P (DM/LM)	JM-1P (D/L)	JM-2P (DM/LM)	JM-2P (D/L)
Rated Load (Resistive)	10A 14VDC	10A 14VDC	10A 14VDC	10A 14VDC
Rated Load (Motor) at 0.5s ON, 9.5s OFF	20A 14VDC	20A 14VDC	20A 14VDC	20A 14VDC
Rated Carrying Current	10A	10A	10A	10A
Max. Allowable Voltage	60VDC	60VDC	60VDC	60VDC
Max. Allowable Current	20A	20A	20A	20A
Max. Allowable Power Force	280W	280W	280W	280W
Contact Material	Ag Alloy	Ag Alloy	Ag Alloy	Ag Alloy
Contact Form	SPST	SPDT	2 x SPST	2 x SPDT

**APPLICATION**

Power Window Control, Auto Door Lock Control,  
Power Mirror Control, Seat Adjustment, Wiper Control

**PERFORMANCE (AT INITIAL VALUE)**

- Contact Resistance ..... 100 mΩ Max.@1A,6VDC
- Operate Time..... 10 mSec. Max.
- Release Time ..... 10 mSec. Max.
- Dielectric Strength:
  - Between Coil & Contact..... 500VAC at 50/60 Hz  
For one minute
  - Between Contacts ..... 500VAC at 50/60 Hz  
for one minute
- Surge Strength ..... 1,500V (between coil & contact 1.2x50μSec.)
- Insulation Resistance ..... 100 MegaΩ Min. at 500VDC
- Max. On/Off Switching:
  - Electrical ..... 6 Cycles per Minute
  - Mechanical..... 300 Cycles per Minute
- Temperature Range ..... -40~+85°C
- Humidity Range ..... 45~85% RH.
- Coil Temperature Rise .... 70°C Max.
- Vibration:
  - Destruction ..... 10 to 55 to 10 Hz,0.75 mm single amplitude (1.5mm double amplitude)
  - Malfunction ..... 10 to 55 to 10 Hz,0.75 mm single amplitude (1.5mm double amplitude)
- Shock:
  - Destruction ..... 1,000 m/S<sup>2</sup>
  - Malfunction ..... 100 m/S<sup>2</sup>
- Life Expectancy:
  - Mechanical ..... 10<sup>7</sup> Operations at No load condition
  - Electrical ..... 10<sup>5</sup> Operations at Rated Resistive Load
- Weight ..... About 5.2g for 1P  
About 10.2g for 2P

**SAFETY STANDARD & FILE NUMBER**

- NIL

**COIL SPECIFICATION (AT 20°C)**

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ( $\Omega \pm 10\%$ )	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
JM-D	6	133	45	Abt. 0.8	60% Maximum	5% Minimum	150% (for short time carrying current)
	9	90	100				
	10	74	135				
	12	66.7	180				
	24	33.3	720				
JM-L	6	100	60	Abt. 0.6			
	9	66.7	135				
	10	55.6	180				
	12	50	240				

**ORDERING INFORMATION**

**JM - SS - 1 12 D M**

**Contact Form:**

**Nil:** One Form C

**M:** One Form A

**B:** One Form B

**D:** Standard DC

**L:** High DC

**1:** One Set

**2:** Two Sets

**SS:** RT II Flux Proofed

**SH:** RT III Wash Tight

**JM**

**Coil Sensitivity:**

**Coil Voltage:**

**06:** 6V, **09:** 9V, **10:** 10V, **12:** 12V, **24:** 24V

**Number of Set:**

**Type of Sealing:**

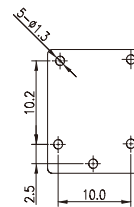
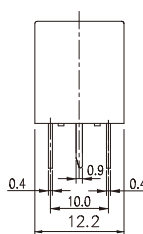
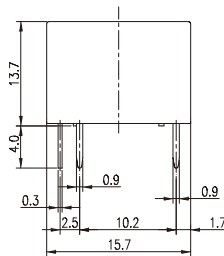
**Type:**

**CLASSIFICATION**

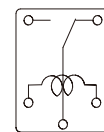
Model	JM											
	Standard DC						High DC					
Coil Sensitivity												
Number of Pole	1 Set			2 Sets			1 Set			2 Sets		
Contact Form	1C	1A	1B	2C	2A	2B	1C	1A	1B	2C	2A	2B
Flux Proofed	1C : JM-SS-1□□D			2C : JM-SS-2□□D			1C : JM-SS-1□□L			2C : JM-SS-2□□L		
	1A : JM-SS-1□□DM			2A : JM-SS-2□□DM			1A : JM-SS-1□□LM			2A : JM-SS-2□□LM		
	1B : JM-SS-1□□DB			2B : JM-SS-2□□DB			1B : JM-SS-1□□LB			2B : JM-SS-2□□LB		
Wash Tight	1C : JM-SH-1□□D			2C : JM-SH-2□□D			1C : JM-SH-1□□L			2C : JM-SH-2□□L		
	1A : JM-SH-1□□DM			2A : JM-SH-2□□DM			1A : JM-SH-1□□LM			2A : JM-SH-2□□LM		
	1B : JM-SH-1□□DB			2B : JM-SH-2□□DB			1B : JM-SH-1□□LB			2B : JM-SH-2□□LB		

**DIMENSION ( $\leq 5\text{mm} \pm 0.2\text{mm}$ ,  $> 5\text{mm} \pm 0.3\text{mm}$ , the tolerance of PCB thru hole:  $+0.1\text{mm}$ )**

**JM-1**

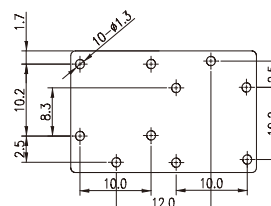
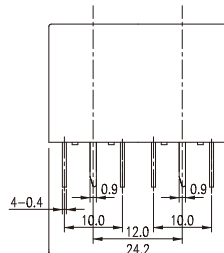
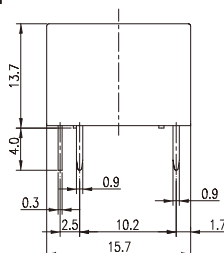


P.C.B Layout Bottom View

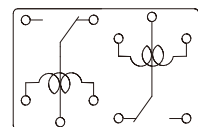


Bottom View

**JM-2**



P.C.B Layout Bottom View



Bottom View

V.01EZ