**FEATURES**

- Low pick-up voltage for high ambient use
- Sealed construction
- Global standard terminal pitch
- Usable at high temperature: 85°C 185°F

**TYPICAL APPLICATIONS**

- Power-window
- Car antenna
- Door lock
- Intermittent wiper
- Interior lighting
- Power seat
- Power sunroof
- Car stereo
- Horn
- Lift gate, etc.

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**ORDERING INFORMATION**

Contact arrangement

1a: 1 Form A
1: 1 Form C

Protection construction

Nil: Sealed type
F: Flux-resistant type

Coil voltage (DC)

12 V

Contact capacity

4: Standard type
5: High capacity type

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**TYPES**

<table>
<thead>
<tr>
<th>Contact arrangement</th>
<th>Coil voltage</th>
<th>Standard type</th>
<th>High capacity type</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td>1 Form A</td>
<td>12 V DC</td>
<td>JSM1a-12V-4</td>
<td>JSM1a-12V-5</td>
</tr>
<tr>
<td>1 Form C</td>
<td>12 V DC</td>
<td>JSM1-12V-4</td>
<td>JSM1F-12V-5</td>
</tr>
</tbody>
</table>

Standard packing: Carton: 100 pcs.; Case: 500 pcs.

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**RATING**

1. **Coil data**

<table>
<thead>
<tr>
<th>Nominal coil voltage</th>
<th>Pick-up voltage (at 20°C 68°F)</th>
<th>Drop-out voltage (at 20°C 68°F)</th>
<th>Nominal operating current [±10%] (at 20°C 68°F)</th>
<th>Coil resistance [±10%] (at 20°C 68°F)</th>
<th>Nominal operating power</th>
<th>Usable voltage range</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 V DC</td>
<td>Max. 6.3 V DC</td>
<td>Min. 0.9 V DC</td>
<td>53.3 mA</td>
<td>225Ω</td>
<td>640 mW</td>
<td>10 to 16V DC</td>
</tr>
</tbody>
</table>

Note: Other pick-up voltage types are also available. Please contact us for details.
2. Specifications

Notes:
*1. This value can change due to the switching frequency, environmental conditions, and desired reliability level, therefore it is recommended to check this with the actual load.
*2. The upper operation ambient temperature limit is the maximum temperature that can satisfy the coil temperature rise value. Please refer to "Usage ambient condition" in CAUTIONS FOR USE OF AUTOMOTIVE RELAYS.
*3. Depends on connection conditions. Also, this does not guarantee repeated switching. We recommend that you confirm operation under actual conditions.

REFERENCE DATA

1-(1). Coil temperature rise (10A)
Measured portion: Inside the coil
Contact carrying current, 10A
Ambient temperature: Room temperature, 85°C

1-(2). Coil temperature rise (15A)
Measured portion: Inside the coil
Contact carrying current, 15A
Ambient temperature: Room temperature, 85°C

2. Max. switching capability
(Resistive load, initial)

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3. Ambient temperature and operating voltage range

4. Distribution of pick-up and drop-out voltage
   Sample: JSM1-12V-5, 50pcs.

5. Distribution of operate and release time
   Sample: JSM1-12V-5, 50pcs.
   Coil both side without diode

6-(1). Electrical life test (Motor load)
   Sample: JSM1-12V-5, 3pcs.
   Load: 50A (Inrush), 10A 16V DC (Steady)
   Switching frequency: (ON : OFF = 1s : 9s)

   Circuit:
   ![Circuit diagram]

6-(2). Electrical life test (Lamp load)
   Sample: JSM1-12V-5, 4pcs.
   Load: 55.2A (Inrush), 9.6A 14.5V DC (Steady)
   Switching frequency: (ON : OFF = 1s : 3s)

   Circuit:
   ![Circuit diagram]
For Cautions for Use, see Relay Technical Information.