Features

1. **Withstands higher force of card insertion**
   Metal cover extends over the back of the connector allowing it to withstand force of up to 400N (static load) when dropped or accidentally hit. (Fig.1)

2. **No damage to the card when accidentally pulled-out**
   The connectors will release the card when a moderate pull-out force of about 4N is applied. There will be no damage to the lock components and all connector functions will not be affected. (Fig.2)

3. **Accidental card fall-out prevention**
   Built-in lock feature holds the card securely in place. (Fig.3)

4. **Reliable Card Insertion and Withdrawal**
   Built-in Push-in / Push-out ejection mechanism assures simple and reliable card insertion and withdrawal.

5. **Designed to accept Secure Digital I/O card (Built-in Ground Contact)**
   The connector allows use of various expansion modules, including the Bluetooth communication modules.

Withstands higher force of card insertion.

---

**Card**

**Standard type**
Metal cover extends over the back of the connector.

**Reverse type**
Metal cover extends over the back of the connector.

---

No damage to the card when accidentally pulled-out.

---

Accidental card fall-out prevention
## Product Specifications

### Rating
- Current rating: 0.5A DC
- Voltage rating: 125V AC

### Conditions
- Operating temperature range: -25°C to +85°C (Note 1)
- Storage temperature range: -40°C to +85°C (Note 2)
- Operating humidity range: Relative humidity 95% max. (No condensation)

### Item | Specification | Conditions
--- | --- | ---
1. Insulation resistance | 1000MΩ min. (Initial value) | 500V DC one minute
2. Withstanding voltage | No flashover or insulation breakdown | 500V AC / one minute
3. Contact resistance | 100mΩ max. (Initial value) | 100mA DC
4. Humidity | Contact resistance: 40mΩ max. from initial value | Frequency: 10 to 55Hz, single amplitude of 0.75mm, 2 hours / 3 axis
5. Vibration | Contact resistance: 100MΩ min. | 96 hours at temperature of 40°C ± 2°C and humidity of 90% to 95%
6. Temperature cycle | Contact resistance: 40mΩ max. from initial value | Temperature: -55°C to +5°C to +35°C to +85°C to +5°C to +35°C
7. Durability (mating/un-mating) | Contact resistance: 40mΩ max. from initial value | Duration: 30 → 5 → 30 → 5 (Minutes) 5 cycles
8. Resistance to soldering heat | No deformation of components affecting performance. | Reflow: At the recommended temperature profile

**Note 1:** Includes temperature rise caused by current flow.

**Note 2:** The term “storage” refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non-conducting condition of installed connectors in storage, shipment or during transportation.

### Materials / Finish

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
<th>Finish</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulator</td>
<td>Heat resistant thermoplastic compound</td>
<td>Color: Black</td>
<td>UL94V-0</td>
</tr>
<tr>
<td>Contacts</td>
<td>Phosphor bronze</td>
<td>Contact area: Gold plating</td>
<td>Tinned copper plating</td>
</tr>
<tr>
<td>Cover</td>
<td>Stainless steel</td>
<td>Termination area: Tinned copper plating</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>Stainless steel Piano wire</td>
<td>Nickel plating</td>
<td></td>
</tr>
</tbody>
</table>

### Product Number Structure

Refer to the chart below when determining the product specifications from the product number.

Please select from the product numbers listed in this catalog when placing orders.

<table>
<thead>
<tr>
<th>DM1</th>
<th>AA</th>
<th>SF</th>
<th>PEJ</th>
</tr>
</thead>
</table>

**1** Series name
**2** Connector type
**3** Terminal type
**4** Eject mechanism codes

- **DM1:** SD Memory Card Connectors
- **AA:** Standard receptacle
- **SF:** Right angle surface mount
- **DSF:** Reverse right angle surface mount
- **PEJ:** Card Push insert/Push withdraw

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### Standard type

- **Part No.** DM1AA-SF-PEJ(82)
- **HRS No.** 609-0004-8 82

---

### PCB mounting pattern

- **Card detection switch**
- **Write protection switch**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>t=0.2</td>
<td>W=0.6</td>
</tr>
<tr>
<td>P=2.5</td>
<td>±0.05</td>
</tr>
<tr>
<td>9.2</td>
<td>±0.05</td>
</tr>
<tr>
<td>18.15</td>
<td>±0.05</td>
</tr>
<tr>
<td>4.125</td>
<td>±0.05</td>
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<tr>
<td>4.25</td>
<td>±0.05</td>
</tr>
<tr>
<td>22.4</td>
<td>±0.05</td>
</tr>
</tbody>
</table>

---

### Card insertion/withdrawal dimensions

- **SD Card**
  - **Card pushed-in for insertion**
  - **Card fully inserted**
  - **Card ejected**

---

- **Weight:** 2.2g

---

(Images and diagrams are included for visual representation.)
### Reverse type

![Image of Reverse type connector](image)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM1B-DSF-PEJ(82)</td>
<td>609-0003-5 82</td>
</tr>
</tbody>
</table>

### PCB mounting pattern

- **CARD DETECT**: Common for CD & WP
- **WP**: Indicates the center line of the card slot.
- **CL**: Indicates the dimension of DIP terminals.

#### Card detection switch
- **OPEN** indicates when the card is not yet inserted.
- **CLOSE** indicates when the card is inserted.

#### Write protection switch
- **OPEN**: When the card is not yet inserted.
- **CLOSE**: When the card is inserted.

#### Dimensions
- **Weight**: 2.1g

---

**DM1 Series SD Memory Card Connectors**

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DM1 Series SD Memory Card Connectors

Packaging specifications

● Embossed Carrier Tape Dimensions (Standard type) 450 pcs/reel

● Embossed Carrier Tape Dimensions (Reverse type) 450 pcs/reel

● Reel dimensions

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Recommended Temperature Profile

HRS test condition
Solder method : Reflow, IR/hot air
Environment : Room air
Solder composition : Paste, 96.5%Sn/3.0%Ag/0.5%Cu
(Senju Metal Industry, Co., Ltd.'s Part Number:M705-GRN360-K2-V)
Test board : Glass epoxy 60mm×100mm×1.0mm thick
Metal mask : 0.15mm thick
Number of reflow cycles : 2cycles max.

The temperature profiles shown are based on the above conditions.
In individual applications the actual temperature may vary, depending on solder paste type, volume / thickness and board size / thickness. Consult your solder paste and equipment manufacturer for specific recommendations.