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.
### Product Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Insulation resistance</td>
<td>1000MΩ min. (Initial value)</td>
<td>500V DC</td>
</tr>
<tr>
<td>2. Withstanding voltage</td>
<td>No flashover or insulation breakdown</td>
<td>500V AC / one minute</td>
</tr>
<tr>
<td>3. Contact resistance</td>
<td>100mΩ max. (Initial value)</td>
<td>100mA DC</td>
</tr>
<tr>
<td>4. Vibration</td>
<td>Contact resistance : 40mΩ max. from initial value</td>
<td>Frequency : 10 to 55Hz, single amplitude of 0.75mm, 2 hours / 3 axis</td>
</tr>
<tr>
<td>5. Humidity</td>
<td>Contact resistance : 40mΩ max. from initial value</td>
<td>96 hours at temperature of 40°C ± 2°C and humidity of 90% to 95%</td>
</tr>
<tr>
<td>6. Temperature cycle</td>
<td>Contact resistance : 40mΩ max. from initial value</td>
<td>Temperature : -55°C to +5°C to +35°C to +85°C to +5°C to +35°C Duration : 30 → 5 → 30 → 5 (Minutes) 5 cycles</td>
</tr>
<tr>
<td>7. Durability (mating/un-mating)</td>
<td>Contact resistance : 40mΩ max. from initial value</td>
<td>10000 cycles at 400 to 600 cycles per hour</td>
</tr>
<tr>
<td>8. Resistance to soldering heat</td>
<td>No deformation of components affecting performance.</td>
<td>Reflow : At the recommended temperature profile Manual soldering : 350°C for 3 seconds</td>
</tr>
</tbody>
</table>

Note1 : Includes temperature rise caused by current flow.
Note2 : 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>Contact area : Gold plating Termination area : Tinned copper plating</td>
<td>UL94V-0</td>
</tr>
<tr>
<td>Contacts</td>
<td>Phosphor bronze</td>
<td></td>
<td></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.

**DM1 AA - SF - PEJ**

<table>
<thead>
<tr>
<th>1 Series name</th>
<th>DM1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Connector type</td>
<td>AA : Standard receptacle B : Reverse receptacle</td>
</tr>
<tr>
<td>3 Terminal type</td>
<td>SF : Right angle surface mount DSF : Reverse right angle surface mount</td>
</tr>
<tr>
<td>4 Eject mechanism codes</td>
<td>PEJ : Card Push insert/Push withdraw</td>
</tr>
</tbody>
</table>
### Standard type

![Image of the SD Memory Card Connectors]

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM1AA-SF-PEJ(82)</td>
<td>609-0004-8 82</td>
</tr>
</tbody>
</table>

### PCB mounting pattern

![Diagram of the SD Memory Card Connectors]

#### Card insertion/withdrawal dimensions

![Card insertion/withdrawal dimensions](Image)
### Reverse type

![Reverse type 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

- **A(5:1)**
  - 1.7 +0.1 (Land)
  - 0 (Through hole)
- **B(5:1)**
  - 1.2 +0.1 (Land)
  - 0.8 ±0.1 (Through hole)
- **C(5:1)**
  - 1.5 +0.1 (Land)
  - 0 (Through hole)

**CARD DETECT**
- COMMON FOR CD & WP

**Center of Card dimension**

- **SD Card**
- **Weight**: 2.1g

---

**Card detection switch**
- OPEN
- CLOSE

**Write protection switch**
- OPEN
- CLOSE

When card is not yet inserted:
- OPEN
- CLOSE

When card is inserted:
- OPEN
- OPEN

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**Indicators**
- Indicates the center line of the card slot.
- Indicates the dimension of DIP terminals.
Packaging specifications

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

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

Reel dimensions
**Recommended Temperature Profile**

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**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 x 100mm x 1.0mm thick
- **Metal mask**: 0.15mm thick
- **Number of reflow cycles**: 2 cycles 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.

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*®*

The characteristics and specifications contained herein are for reference purpose. Please refer to the latest customer drawings prior to use. The contents of this catalog are current as of date of 03/2020. Contents are subject to change without notice for the purpose of improvements.