

Connector for microSD™ Card (Push-push Type)

SCHA Series



Compact low-profile type most suitable for mobile phones.



For
SD Memory
Card

For
microSD™
Card

For
SIM Card
8pins

For
Memory
Stick Micro™

Combine Type

For
W-SIM

Typical Specifications

Items		Specifications	
Structure	Applicable media		microSD™ Card
	Mounting type		Surface mounting type
	Mounting style		Standard mount/ Reverse mount
	Media ejection structure		Push-push type
Performance	Operating temperature range		-20°C to +70°C
	Voltage proof		500V AC 1minute
	Insulation resistance (Initial)		1,000MΩ min.
	Contact resistance (Initial)	Connector contacts	100mΩ max.
		Detection switch	500mΩ max.
	Insertion and removal cycle		10,000cycles

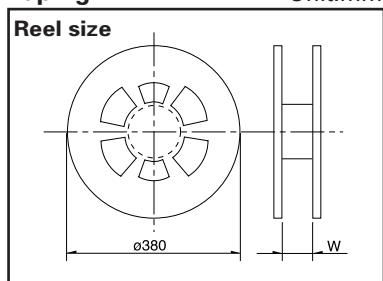
Product Line

Media ejection structure	Mounting system	Features	Stand-off (mm)	Packing system	Product No.	Drawing No.
Push-push type	Standard mount	With switch	0	Taping	SCHA4B0100	1
		With switches and fly-out protection.			SCHA4B0400	2
	Reverse mount	With switch			SCHA5B0200	3

Packing Specifications

Taping

Unit:mm



Product No.	Number of packages (pcs.)			Reel width W (mm)	Tape width (mm)	Export package measurements (mm)
	1 reel	1 case /Japan	1 case /export packing			
SCHA4B0100	2,000	6,000	12,000	24.4	24	403 × 403 × 249
SCHA4B0400	1,500	4,500	9,000			
SCHA5B0200						



Automotive Use

Note

Please place purchase orders per minimum order unit N (integer).

Refer to P.558 for soldering conditions.

ALPS

Dimensions

Standard mount

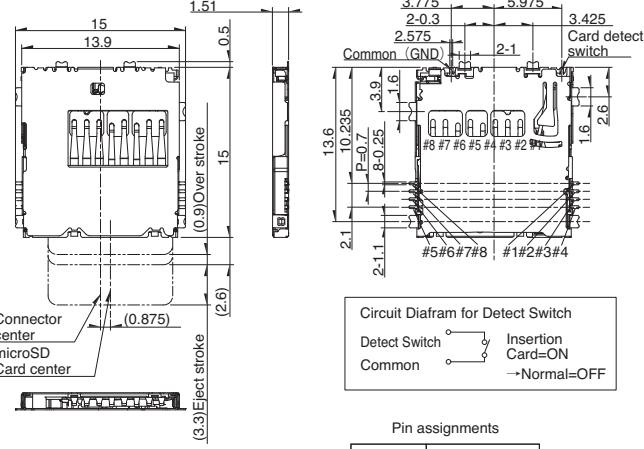
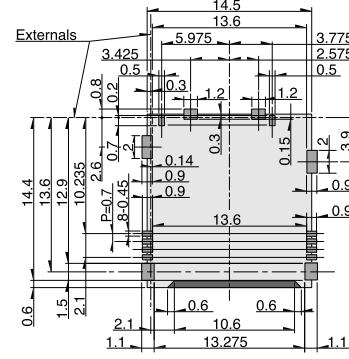
Unit:mm

No.	Style	PC board mounting hole dimensions (Viewed from the mounting face side)																		
1	<p>With switch</p> <p>Connector center</p> <p>Card detect switch Common (GND)</p> <p>1.38</p> <p>1.29</p> <p>0.9</p> <p>0.35</p> <p>0.35</p> <p>0.9</p> <p>0.6</p> <p>10-0.3</p> <p>0.8</p> <p>1.17</p> <p>15.2</p> <p>(0.9)Over stroke</p> <p>(2.3)</p> <p>(3.3)Eject stroke</p> <p>microSD Card center</p> <p>Connector center</p> <p>Card detect switch Common (GND)</p> <p>#1</p> <p>#8</p> <p>GND</p> <p>1.38</p> <p>1.29</p> <p>0.9</p> <p>0.35</p> <p>0.35</p> <p>0.9</p> <p>0.6</p> <p>10-0.3</p> <p>0.8</p> <p>1.17</p> <p>15.2</p> <p>(0.9)Over stroke</p> <p>(2.3)</p> <p>(3.3)Eject stroke</p> <p>microSD Card center</p> <p>Circuit Diafram for Detect Switch</p> <p>Common → Normal=OFF</p> <p>Insertion Card=ON</p> <p>Pin assignments</p> <table border="1"> <thead> <tr> <th>PIN</th> <th>SD Mode</th> </tr> </thead> <tbody> <tr> <td>#1</td> <td>DAT2</td> </tr> <tr> <td>#2</td> <td>DAT3/CD</td> </tr> <tr> <td>#3</td> <td>CMD</td> </tr> <tr> <td>#4</td> <td>V_{DD}</td> </tr> <tr> <td>#5</td> <td>CLK</td> </tr> <tr> <td>#6</td> <td>V_{SS}</td> </tr> <tr> <td>#7</td> <td>DAT0</td> </tr> <tr> <td>#8</td> <td>DAT1</td> </tr> </tbody> </table> <p>Connector center</p> <p>5.325</p> <p>4.125</p> <p>3.8</p> <p>3.15</p> <p>15.3</p> <p>14.2</p> <p>13.9</p> <p>12.95</p> <p>12.45</p> <p>11.4</p> <p>7</p> <p>7.1</p> <p>#8 #7 #6 #5 #4 #3 #2 #1</p> <p>10-0.7</p> <p>3.275</p> <p>6.1</p> <p>13.8</p> <p>7.05</p> <p>7.05</p> <p>6.675</p> <p>5.375</p> <p>3.2</p> <p>2.55</p> <p>0.5</p> <p>14.4</p> <p>15.2</p> <p>0.25</p> <p>0.725</p> <p>Pattern Area</p> <p>NO Pattern Area</p>	PIN	SD Mode	#1	DAT2	#2	DAT3/CD	#3	CMD	#4	V _{DD}	#5	CLK	#6	V _{SS}	#7	DAT0	#8	DAT1	
PIN	SD Mode																			
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2	<p>With switches and fly-out protection</p> <p>Connector center</p> <p>1.32(1.45 max.)</p> <p>1.258</p> <p>0.9</p> <p>0.35</p> <p>0.35</p> <p>0.9</p> <p>0.6</p> <p>10-0.3</p> <p>0.8</p> <p>1.17</p> <p>15.25</p> <p>(0.9)Over stroke</p> <p>(2.3)</p> <p>(3.3)Eject stroke</p> <p>microSD Card center</p> <p>Connector center</p> <p>Card detect switch Common (GND)</p> <p>#1</p> <p>#8</p> <p>GND</p> <p>1.32</p> <p>1.258</p> <p>0.9</p> <p>0.35</p> <p>0.35</p> <p>0.9</p> <p>0.6</p> <p>10-0.3</p> <p>0.8</p> <p>1.17</p> <p>15.25</p> <p>(0.9)Over stroke</p> <p>(2.3)</p> <p>(3.3)Eject stroke</p> <p>microSD Card center</p> <p>Circuit Diafram for Detect Switch</p> <p>Common → Normal=OFF</p> <p>Insertion Card=ON</p> <p>Pin assignments</p> <table border="1"> <thead> <tr> <th>PIN</th> <th>SD Mode</th> </tr> </thead> <tbody> <tr> <td>#1</td> <td>DAT2</td> </tr> <tr> <td>#2</td> <td>DAT3/CD</td> </tr> <tr> <td>#3</td> <td>CMD</td> </tr> <tr> <td>#4</td> <td>V_{DD}</td> </tr> <tr> <td>#5</td> <td>CLK</td> </tr> <tr> <td>#6</td> <td>V_{SS}</td> </tr> <tr> <td>#7</td> <td>DAT0</td> </tr> <tr> <td>#8</td> <td>DAT1</td> </tr> </tbody> </table> <p>Connector center</p> <p>15.35</p> <p>14.2</p> <p>13.6</p> <p>12.95</p> <p>12.68</p> <p>12.45</p> <p>11.7</p> <p>8.05</p> <p>8.05</p> <p>2.8875</p> <p>4.775</p> <p>7.1</p> <p>1.1</p> <p>1.1</p> <p>0.15</p> <p>0.5</p> <p>2.4</p> <p>4.15</p> <p>8.35</p> <p>1.0375</p> <p>6.0125</p> <p>5.3125</p> <p>4.1125</p> <p>3.8</p> <p>3.15</p> <p>2.5125</p> <p>1.4675</p> <p>1.1</p> <p>1.1</p> <p>0.15</p> <p>1.0375</p> <p>6.6625</p> <p>5.3625</p> <p>3.2</p> <p>2.55</p> <p>14.4</p> <p>15.2</p> <p>15.3</p> <p>0.25</p> <p>10-0.7</p> <p>Pattern area</p> <p>No pattern exposed area</p> <p>No pattern area</p>	PIN	SD Mode	#1	DAT2	#2	DAT3/CD	#3	CMD	#4	V _{DD}	#5	CLK	#6	V _{SS}	#7	DAT0	#8	DAT1	
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Dimensions
Reverse mount

Unit:mm

No.	Style	PC board mounting hole dimensions (Viewed from the mounting face side)																		
3	<p>Slim type with switch</p>  <p>Circuit Diagram for Detect Switch</p> <p>Common (GND) Insertion Card=ON Common →Normal=OFF</p> <p>Pin assignments</p> <table border="1"> <thead> <tr> <th>PIN</th> <th>SD Mode</th> </tr> </thead> <tbody> <tr> <td>#1</td> <td>DAT2</td> </tr> <tr> <td>#2</td> <td>DAT3/CD</td> </tr> <tr> <td>#3</td> <td>CMD</td> </tr> <tr> <td>#4</td> <td>V_{DD}</td> </tr> <tr> <td>#5</td> <td>CLK</td> </tr> <tr> <td>#6</td> <td>V_{SS}</td> </tr> <tr> <td>#7</td> <td>DAT0</td> </tr> <tr> <td>#8</td> <td>DAT1</td> </tr> </tbody> </table>	PIN	SD Mode	#1	DAT2	#2	DAT3/CD	#3	CMD	#4	V _{DD}	#5	CLK	#6	V _{SS}	#7	DAT0	#8	DAT1	 <p>Externals</p> <p>Legend: NO Pattern Area (White) Land Area (Grey) P.C.B cut on the point of CARD interference. (Dark Grey)</p>
PIN	SD Mode																			
#1	DAT2																			
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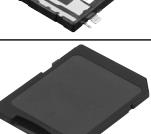
Combine Type

For
W-SIM



Automotive
Use

List of Varieties

Applicable media	Product No.	Photo	Media ejection structure	Mounting style	Features	Stand-off (mm)	Auto motive use	Page	
For SD Memory Card	SCDA9A0400		Push-push type	Standard mount	Inner tail Card eject stroke 5mm	0	—	527	
For microSD™ Card	SCDA8A0201				Inner tail Card eject stroke 8mm				
For SIM Card 8pins	SCDA7A0101				Card eject stroke 8mm	1.5			
For Memory Stick Micro™	SCDA7A0200				Card eject stroke 8mm	1.8			
Combine Type	SCDA7A1201			Reverse mount	Outer tail	0	—		
For W-SIM	SCDAAA0100				Outer tail	1.8			
microSD™ Card	SCHA4B0100		Standard mount	With switch	With switch	0	—	532	
	SCHA4B0400			With switches and fly-out protection.					
	SCHA5B0200			Reverse mount	With switch				
	SCHB1A0205		Standard mount	Hinge cover type Without switch	With switch	0	—	535	
	SCHB1B0100			Hinge cover type With switch					
	SCHD1A0101			Header type					
	SCHD3A0100			—	Adapter	—	—	537	
	SCHH1D0100			—	Adapter	—			

Note

Omarks in "Available for automotive use" indicate that some of the series products can work at the operating temperature range from -40°C to +85°C.

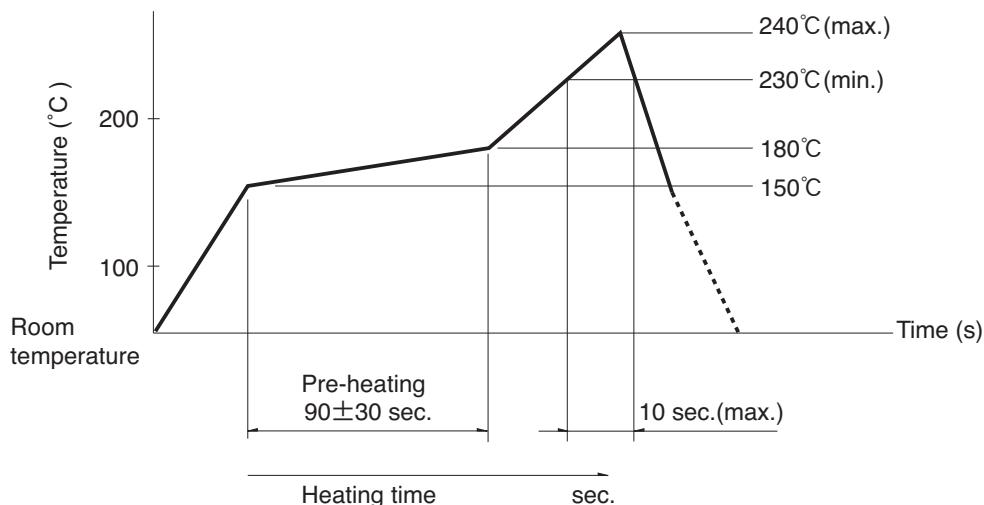
Note

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Soldering Conditions

Example of Reflow Soldering Condition (Reference)

1. Heating method: Double heating method with infrared heater.
2. Temperature measurement: Thermocouple 0.1 to 0.2 φ CA (K) or CC (T) at soldering portion.
3. Temperature profile



Please refer to each product's specification sheet to confirm temperature profile.

Cautions for using this product

1. Connector handling precautions

- (1) Safeguard the connector assembly against flux penetration from its top side.
- (2) This product is designed on the assumption that they will not be washed after soldering.

If you wash it, it may be cause deterioration of mechanically and electrically.

If washing is necessary, please make contact with us beforehand.

2. When soldering terminals, there is a danger that load placed on the terminals may cause rattle, deformation or electrical degradation to occur depending on the conditions.

Caution is therefore required.

3. When soldering, do not use water soluble flux because this may corrode the product.

4. regarding the setting of reflow conditions, please confirm them with the actual mass production conditions.

5. As P.W.B. warping may alter characteristics, please take this into consideration when designing pattern and layout.

6. Please do not solder at the ejector pushing position.

7. To prevent contact disturbance by the sulfuration or oxidation of the contact and terminal, and deterioration of solder ability by thin film on the terminal, please note following.

- Storage in the atmosphere of high temperature at 60 degrees or more, high humidity, corrosive gases such as sulfur or chloride gas, and excessive piling up of the carton boxes shall be avoided.
- Connectors shall be stored as the package not opened and in the normal temperature and normal humidity, and the connectors shall be used preferably within 3 months, at least within 6 months.
- When the connectors are stored after opening the package, the connectors shall be sealed with a polyethylene bag etc. and stored in dark and cool place, avoiding direct sunlight. Bag etc. and stored in dark and cool place, avoiding direct sunlight. The connectors shall be used as soon as possible.

8. Don't push or hold down the metal cover of the connector, otherwise there is a possibility that the card would not be ejected or influences to other function.

9. Please attention following items to prevent connector from miss operation, such as bounding caused by ON/OFF switching and chattering by vibration.

- Repeated reading/writing.
- Establish delay time-recommended 400msec min.
- Establish CR accumulation circuit.

10. This product does not operate normally when the card which does not conform to the specification is used occasionally.

For SD Memory Card
For microSD™ Card
For SIM Card 8pins
For Memory Stick Micro™
Combine Type
For W-SIM