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Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



SD Memory Card Connectors

DM1 Series



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.



Fig.3

HRS

Product Specifications

Rating	Current rating 0.5A DC	Operating temperature range : -25°C to +85°C (Note 1)	Operating humidity range : Relative humidity 95%
	Voltage rating 125V AC	Storage temperature range : -40°C to +85°C (Note 2)	max. (No condensation)

Item	Specification	Conditions
1. Insulation resistance	1000MΩ min. (Initial value)	500V DC
2. Withstanding voltage	No flashover or insulation breakdown	500V AC / one minute
3. Contact resistance	100mΩ max. (Initial value)	100mA DC
4. Vibration	No electrical discontinuity of 100ns or more	Frequency : 10 to 55Hz, single amplitude of 0.75mm, 2 hours / 3 axis
5. Humidity	Contact resistance : $40m\Omega$ max. from initial value Insulation resistance : $100M\Omega$ min.	96 hours at temperature of $40^\circ\!C\pm2^\circ\!C$ and humidity of 90% to 95%
6. Temperature cycle	Contact resistance : $40m\Omega$ max. from initial value Insulation resistance : $100M\Omega$ min.	Temperature : $-55^{\circ}_{\circ} \rightarrow +5^{\circ}_{\circ}$ to $+35^{\circ}_{\circ} \rightarrow +85^{\circ}_{\circ} \rightarrow +5^{\circ}_{\circ}$ to $+35^{\circ}_{\circ}$ Duration : $30 \rightarrow 5 \rightarrow 30 \rightarrow 5$ (Minutes) 5 cycles
7. Durability (mating/un-mating)	Contact resistance: 40m max. from initial value	10000 cycles at 400 to 600 cycles per hour
8. Resistance to soldering heat	No deformation of components affecting performance.	Reflow : At the recommended temperature profile Manual soldering : 350°C for 3 seconds

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

Component	Material	Finish	Remarks
Insulator	Heat resistant thermoplastic compound	Color: Black	UL94V-0
Contacts	Phosphor bronze	Contact area: Gold plating Termination area: Tinned copper plating	
Cover	Stainless steel	Termination area: Tinned copper plating	
Others	Stainless steel Piano wire	Nickel plating	

Product Number Structure



 Series name 	DM1	8 Terminal type
Connector type	AA : Standard receptacle	SF : Right angle surface mount
	B : Reverse receptacle	DSF : Reverse right angle surface mount
		④ Eject mechanism codes
		PEJ : Card Push insert/Push withdraw

Standard type



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

PCB mounting pattern







29	No	.4	
1.0	No.2 No.3	No.5 No.6	
<u>ا</u>			6 7 6
Ē	23.2 4.55		
			3-0.5

☐> € indicates the center line of card slot.

Card detec	tion switch	Write protection switch		
When card When card		When card	When card	is inserted
is ejected	is inserted	is ejected	WRITE PROTECT	WRITE ENABLE
OPEN	CLOSE	OPEN	OPEN	CLOSE
00	00	0 0	0 0	00
Weight:2.2g				

Card insertion/withdrawal dimensions



RS _{C41}

Reverse type



Part No.	HRS No.
DM1B-DSF-PEJ(82)	609-0003-5 82

2>8.63

2> 6.95

<u>ן</u>

2 5.62

(14.35)

1.7 ^{+0.1} (Land)

2> 7.65

1>¢

⊡\$

SD Card

●PCB mounting pattern



 $1 \downarrow$ indicates the center line of the card slot.

indicates the dimension of DIP terminals.

Card detection switch		Write protection switch		
When card	When card	When card	When card	l is ejected
is ejected	is ejected	is ejected	WRITE PROTECT	WRITE ENABLE
OPEN	CLOSE	OPEN	OPEN	CLOSE
0 0	00	0 0	00	00

Weight:2.1g

10:Card ejected(Card ejected dimension)

29.9

0

(5):Card pushed for insertion

(6):Card fully inserted

Packaging specifications

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



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



•Reel dimensions



Top cover tape



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 $\!\!\times\!100mm \!\!\times\!\!1.0mm$ 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.