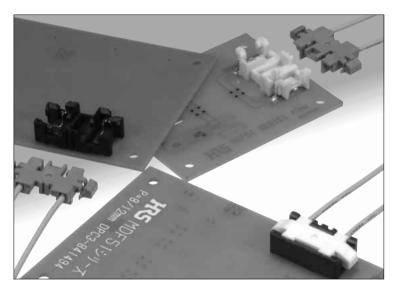
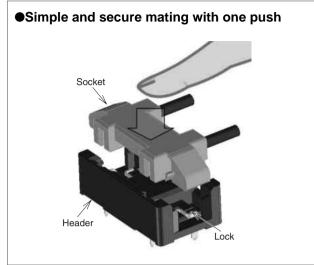
High Voltage Board to Cable Connectors

MDF51 Series





■Features

1. Easy and simple mating

Built-in locks assure correct and complete mating with a single push on the plug.

2. Reduced space requirement

Vertical mating direction and built-in self-aligning features eliminate the need for the extra space when mating / unmating.

3. Designed for high voltage applications

Large contact pitch and the creepage distance maintain stable and safe performance at high voltage levels.

4. Secure attachment to the board

Soldering at 4 points secure the headers to the board.

5. Secure hold during the soldering operation.

Through-hole termination header (12mm pitch only) incorporates a hold-down feature to prevent dislocation during the soldering operation.

6. UL, C-UL, and TÜV certified (12mm pitch only)

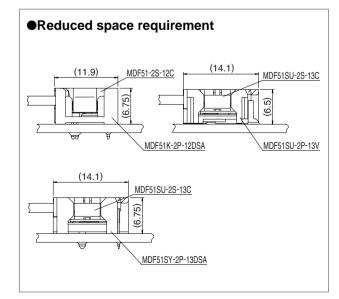
7. RoHS compliant

All components and materials comply with the requirements of EU Directive 2002/95/EC.

■Applications

LCD TV backlights, FPD power supplies and other applications requiring small high-voltage connectors.

Contacts Hold-down



■Specifications

Ratings	Current rating	Current rating 1 A	Operating temperature range Operating humidity range	-35°C to +85°C (Note 1) RH 20% to 80%
naurys	Voltage rating 3000 V AC/DC	Storage temperature range	-10°C to +60°C (Note 2)	
	voltage rating	3000 V AC/DC	Storage humidity range	RH 40% to 70% (Note 2)

		UL, C-UL	TÜV
Ratings	Current rating	1A	1A
	Voltage rating	1000V AC/DC	1000V AC/DC

■File and recognition numbers:
UL and C-UL : E52653
TÜV : R50085755

Item	Specification	Conditions	
1. Insulation resistance	1000 MΩ min.	500 V DC	
2. Withstanding voltage	No flashover or insulation breakdown	5000 V AC / 1 minute	
3. Contact resistance	20 mΩ max.	20 mV max., at 1 mA .	
4 Milanatian	No electrical discontinuity of 1 μ s or longer	Frequency: 10 to 55 Hz, single amplitude of 0.75 mm,	
4. Vibration	No damage, cracks or parts dislocation.	10 cycles, 3 axis	
C. Charle	No electrical discontinuity of 1 μ s or longer	Acceleration of 490 m/s², 11 ms duration, sine half-wave,	
5. Shock	No damage, cracks or parts dislocation.	3 cycles in each of the 3 axis	
	Contact resistance: 40 mΩ max.,		
6. Humidity	Insulation resistance: 500 MΩ min.	96 hours at of 40 ±2°C, and humidity of 90 to 95%	
	No damage, cracks or parts dislocation.		
	Contact resistance: 40 mΩ max.,	-55°C → 5 to 35°C → 85°C → 5 to 35°C	
7. Temperature cycle	Insulation resistance: 500 MΩ min.	Times: 30 min. \rightarrow 3 min. \rightarrow 2 min. to 3 min. \rightarrow 30 min. \rightarrow 2 min. to 3 min.	
	No damage, cracks or parts dislocation.	5 cycles	
O. Domahiliko	Contact resistance: 40 mΩ max.	00 males	
8. Durability	No damage, cracks or parts dislocation.	30 cycles	
	No defermation of companyons offerting	Reflow: At the recommended temperature profile (MDF51SU)	
9. Resistance to soldering heat	No deformation of components affecting	Flow: Solder temperature 260°C, 10 seconds (MDF51K and MDF51SY)	
	performance	Manual soldering: 380°C for 3 seconds	

Note 1. Includes temperature rise caused by current flow.

Note 2. The term "storage" refers to products stored for a long period prior to mounting and use.

The operating temperature and humidity range covers the non-conducting condition of installed connectors in storage, shipment or during transportation.

Note 3. Information contained in this catalog represents general requirements for this Series. Contact us for the drawings and specifications for a specific part number shown.

■Materials/Finishes

●**Headers**

Part	Material	Finish	Remarks
Insulator	MDF51K PBT	Color: Black	
	MDF51SU: Polyamide	Color: Beige	UL94V-0
	MDF51SY: Polyamide	Color: Black	
Contacts	Brass	Tin plated	

●Crimp socket

Part	Material	Finish	Remarks
Socket Insulator	MDF51: Polyamide	Color: White	UL94V-0
	MDF51SU: Polyamide	Color: Gray	01947 0
Crimp contacts	Phosphor bronze	Tin plated	

■Ordering information

●Header

$$\frac{\mathsf{MDF51}}{0} \, \, \frac{\#}{2} \, - \, \frac{*}{6} \, \frac{\mathsf{P}}{4} \, - \, \frac{12}{6} \, \, \frac{\mathsf{DSA}}{6}$$

Series name: MDF51	Number of contacts : 2
Configuration type	Connector type P: Header
K : Contact pitch 12mm, through hole	Contact pitch 12mm or 13mm
SU: Contact pitch 13mm, surface mount	Termination type
SY: Contact pitch 13mm, through hole	DSA : through hole, straight
	V : surface mount, straight

Crimp socket

$$\frac{\mathsf{MDF51}}{0} \,\, \frac{\#}{2} \,\, - \,\, \frac{*}{6} \,\, \frac{\mathsf{S}}{4} \,\, - \,\, \frac{\mathsf{12}}{6} \,\, \frac{\mathsf{C}}{6}$$

① Series name: MDF51	Number of contacts : 2
Configuration type	4 Connector type S: Crimp socket
Blank : Contact pitch 12mm, standard	6 Contact pitch 12mm or 13mm
SU : Contact pitch 13mm, standard	Termination C: Crimp

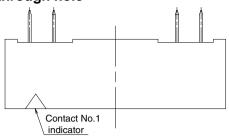
●Contacts

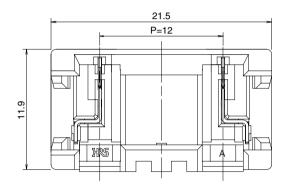
$$MDF51 - 24 SCF$$

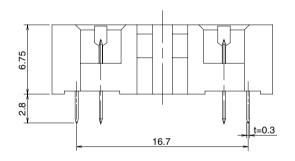
Applicable conductor	Packaging
24: AWG# 24	SCF: Female crimp contact / reel

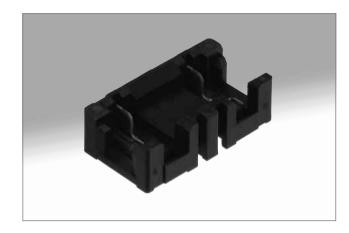
■Header, MDF51K (Contact pitch 12mm)

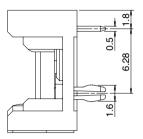
●Straight, through hole



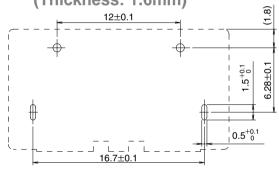








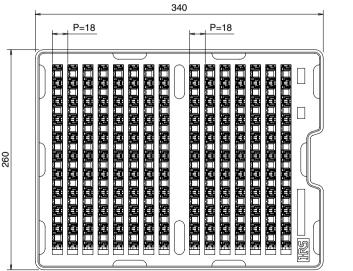
Recommended PCB mounting pattern (Thickness: 1.6mm)



16.65

All dimensions: mm

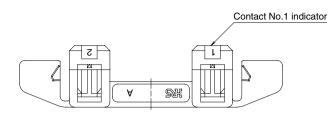
Packaging Specification

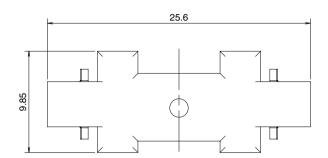


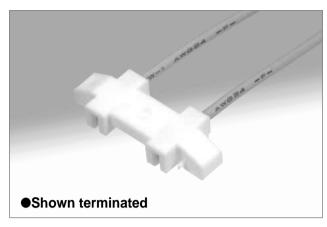
Part Number	CL No.	Number of contacts	Insulator Color	Packaging	RoHS
MDF51K-2P-12DSA(20)	547-2017-9-20	2	Black	150 pieces/ tray	YES

Order by number of 150.

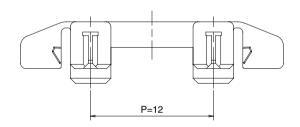
●Crimp socket

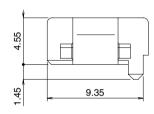






• Contacts supplied separate





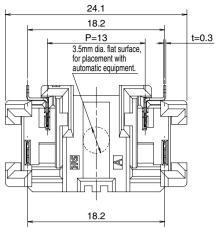
Part Number	CL No.	Number of contacts	Insulator Color	Packaging	RoHS
MDF51-2S-12C	547-2004-7-00	2	White	100 pieces/bag	YES

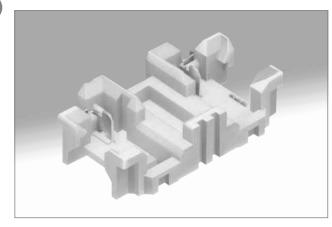
Order by number of bags.

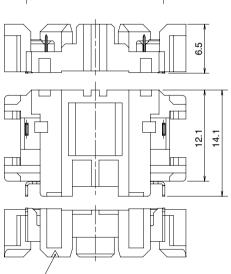
B326 **HS**

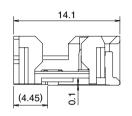
■Header, MDF51SU (Contact pitch 13mm)

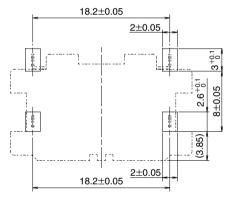
●Straight, surface mount







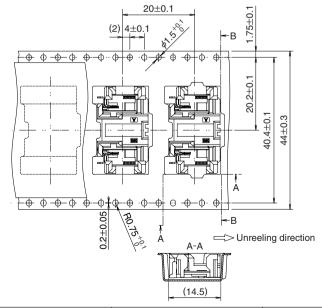


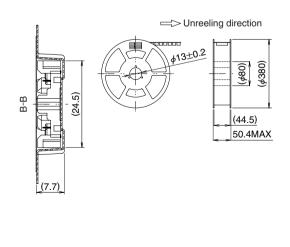


Packaging Specification

Contact No.1 indicator

All dimensions: mm

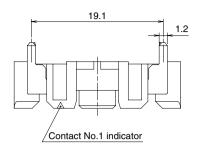


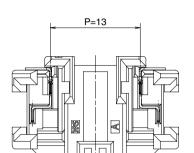


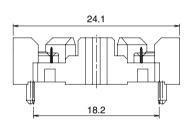
Part Number	CL No.	Number of contacts	Insulator Color	Packaging	RoHS
MDF51SU-2P-13V(23)	547-2016-6-23	2	Beige	600 pieces/reel	YES

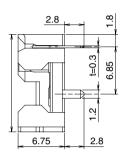
Order by number of reels.

●Header, Straight, through hole

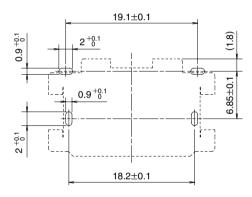






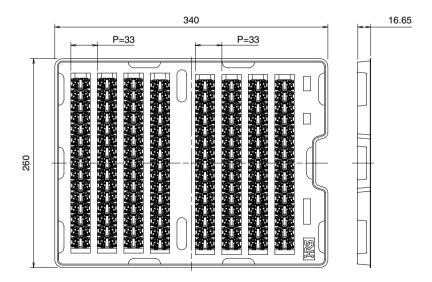


●Recommended PCB mounting pattern (Thickness: 1.6mm)



Packaging Specification

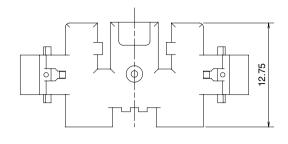
All dimensions: mm

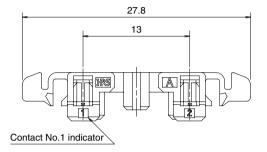


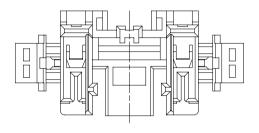
Part Number	CL No.	Number of contacts	Insulator Color	Packaging	RoHS
MDF51SY-2P-13DSA(21)	547-0920-3-21	2	Black	120 pieces/tray	YES

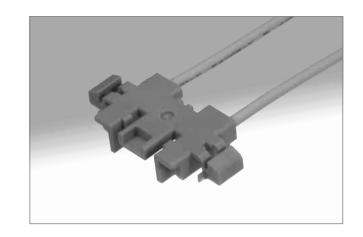
Order by number of 120.

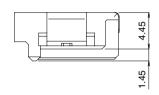
●Crimp socket







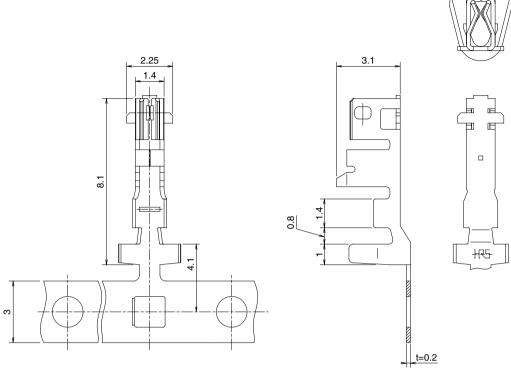




Part Number	CL No.	Number of contacts	Insulator Color	Packaging	RoHS
MDF51SU-2S-13C(03)	547-2018-1-03	2	Gray	100 pieces/bag	YES

Order by number of bags.

●Crimp contact



All dimensions: mm

Part Number	CL No.	Packaging	Quantity	Finish	RoHS
MDF51-24SCF(40)	547-2005-0-40	Reel	10,000	Tin plated	YES

● Applicable wire (Tin plated annealed copper wire)

Wire size (Stranded wire conductor)	Jacket diameter
AWG24 (19 / 0.127mm)	1.74mm

Note: When using other than the recommended wire, contact your nearest Hirose sales representative.

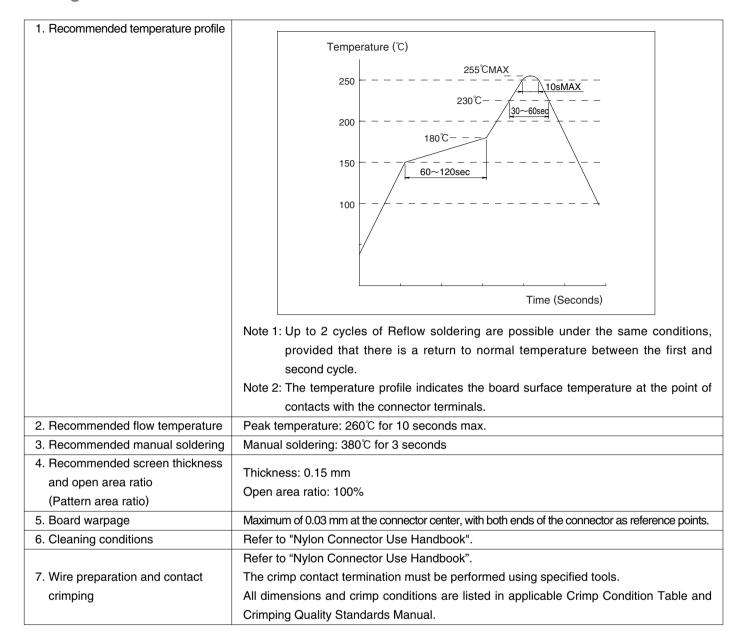
●UL style: UL3239

Strip length 1.8 to 2.6mm

■Tools

Туре	Part Number	CL No.	Applicable contact
Applicator	AP105-MDF51-24S	CL901-4607-9-00	MDF51-24SCF
Press	CM-105	CL901-0005-4-00	
Contact extraction tool	DF-C-PO(B)	CL550-0179-2-00	MDF51-24SCF

■Usage Recommendations



The product information in this catalog is for reference only. Please request the Engineering Drawing for the most current and accurate design information. All non-Roll Monday's save been discontinued and Posse characters and the Hirose website Rolls search at www.hirose-connectors.com, or contact your Hirose sales representative.

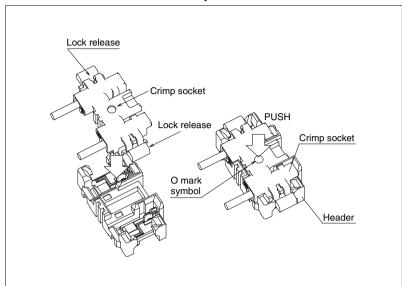
8. Precautions

■ Mating

Socket will self-align in the header.

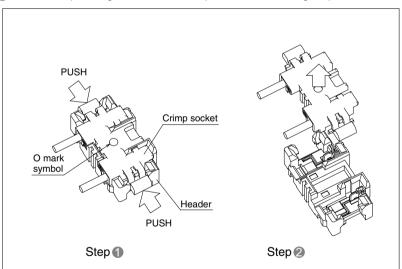
Align the Socket over the header and firmly push-down at the "O" symbol until both locks are fully engaged.

Tactile "click" sensation will confirm fully locked condition.



■Unmating

- Compress both lock releases even, toward each-other.
- While compressing the lock releases pull the socket straight up until free of the header.



- ■The crimped contacts must be fully inserted in the crimp socket horizontally and will self-guide itself in the proper position
- ■The header must be mounted on the PC board when mating with the corresponding socket.
- ■Differences in colors shade of the molded components will not affect form, fit or function.
- ■Contact HRS if additional information is required.

ПОСТАВКА ЭЛЕКТРОННЫХ КОМПОНЕНТОВ

многоканальный

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001 Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

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