FS 0,635/ 40-FV-F-6,0 - SMD female connectors

1439170

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SMD female connector, nominal current: 0.5 A, test voltage: 500 V AC, number of positions: 40, pitch: 0.635 mm, color: black, contact surface: Au, contact connection type: Socket, mounting: SMD soldering

Your advantages

- Design-in support during device development using MCAD/ECAD data and a free sample service
- Cost and space savings with the comprehensive portfolio available in various stack heights
- Easy mating with integrated keyways and tolerance compensation for error-free production
- Absorption of tolerances and mechanical stresses for a secure connection due to the floating function
- Unique combination: tolerance compensation through floating and very high data transmission possible in one connector

Commercial data

Item number	1439170
Packing unit	500 pc
Minimum order quantity	500 pc
Sales key	AA23
Product key	AAWACG
GTIN	4063151816896
Weight per piece (including packing)	2.182 g
Weight per piece (excluding packing)	2 g
Customs tariff number	85366930
Country of origin	CN

Technical data

Product properties

Product type	SMD female connector
Product family	FS 0,635/..-FV-F- 6,0
Number of positions	40
Pitch	0.635 mm
Number of rows	2
Pin layout	Linear pad geometry

Electrical properties

Properties

Nominal current I_N	0.5 A IEC 60512-5-2:2002-02 (40-pos. / 60-pos. / 80-pos.)
Contact resistance	70 mΩ
Test voltage	500 V AC IEC 60512-4-1:2003-05
Rated voltage (I/1)	125 V
Rated surge voltage (I/1)	0.8 kV

Data transmission

Data transmission rate	40 Gbps

Mounting

Mounting type	SMD soldering
Pin layout	Linear pad geometry

Material specifications

Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Selective coating
Metal surface contact area (top layer)	Gold (Au)
Metal surface contact area (middle layer)	Nickel (Ni)
Metal surface soldering area (top layer)	Tin (Sn)
Metal surface soldering area (middle layer)	Nickel (Ni)

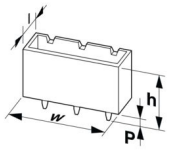
Material data - housing

Color (Housing)	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

Notes

Notes on operation	The permissible voltage during operation depends on the application, taking into consideration the air clearances and creepage distances within the scope of insulation requirements in accordance with IEC 60664-1.

Dimensions

Dimensional drawing	
Pitch	0.635 mm
Width [w]	23.8 mm
Height [h]	6.5 mm
Length [l]	10.4 mm
Installed height	6 mm

Application

Contact cover	0.6 mm
Center offset	± 0.7 mm in longitudinal and transverse direction
Stack height	8 mm Tolerance: +0.6 mm (in combination with Range of articles:FS 0,635/..-MV-R- 5,0)
	11 mm Tolerance: +0.6 mm (in combination with Range of articles:FS 0,635/..-MV-R- 8,0)
	12 mm Tolerance: +0.6 mm (in combination with Range of articles:FS 0,635/..-MV-R- 9,0)
Wipe length	0.6 mm
Angular tolerance	± 10 ° in longitudinal and transverse direction (when plugging in)
	± 5 ° in longitudinal and transverse direction (when plugged in)
Axial offset in X direction (longitudinal)	± 0.7 mm (in longitudinal and transverse direction (when plugged in))
Axial offset in Y direction (transversal)	± 0.7 mm (in longitudinal and transverse direction (when plugged in))

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-2:2002-02
Tested number of positions	80

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	≥ 5 GΩ

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	IIIa
Minimum value for clearance and creepage distance	0.2 mm

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 55 - 10 Hz
Sweep speed	1 octave/min
Amplitude	1.52 mm
Acceleration	181 m/s²
Test duration per axis	2 h
Test directions	X-, Y- and Z-axis

Durability test

Specification	IEC 60512-9-1:2010-03 (following)
Contact resistance R_1	70 mΩ
Contact resistance R_2	70 mΩ
Insertion/withdrawal cycles	50
Insulation resistance, neighboring positions	≥ 5 GΩ

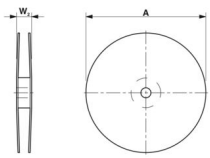
Climatic test

Specification	IEC 60068-2-60:2015-06
Corrosive stress	Method 4, 10 days
Thermal stress	125 °C/168 h
Power-frequency withstand voltage	500 V

Ambient conditions

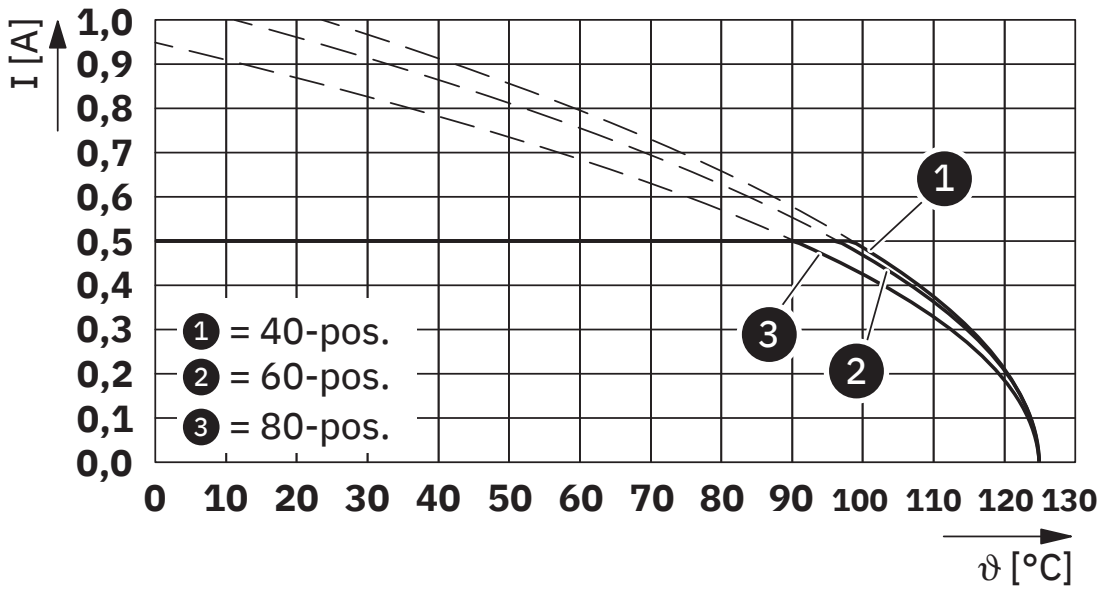
Ambient temperature (operation)	-55 °C ... 125 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

Dimensional drawing	
Type of packaging	44 mm wide tape
[W] tape width	44 mm
[W2] coil overall dimension	≤ 50.4 mm
[A] coil diameter	≤ 330 mm
Outer packaging type	Transparent-Bag

Drawings

Diagram



Type: FS 0,635/...-MV-R- 8,0 with FS 0,635/...-FV-F-6,0

Approvals

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cULus Recognized
Approval ID: E118976-20230512

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	29.9 V	0.5 A	-	-

Classifications

ECLASS

ECLASS-13.0	27460201
ECLASS-15.0	27460201

ETIM

ETIM 9.0	EC002637

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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