

Cannon's SMB Snap-on and SMC Screw-on subminiature coaxial connectors have been specifically engineered for high performance and high reliability applications in both military and commercial equipment operating at frequencies up to 4 GHz (SMB) and 12.4 GHz (SMC).

The Snap-on mating engagement allows a rapid connect/disconnect facility. The Screw-on mating engagement allows a low VSWR under vibration conditions and a matched impedance of 50 ohms.

Cannon SMB/SMC connectors are compatible with all SMB/SMC type connectors conforming with MIL-C-39012, BS 9210, UTE C93 561, UTE C93 562, CECC 22 130 and CECC 22 140.

In addition to this range we also offer FAKRA SMB connectors for automotive applications.

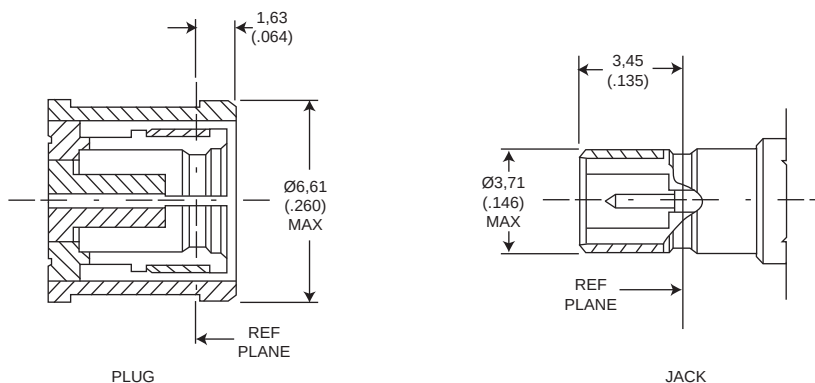


Key Features

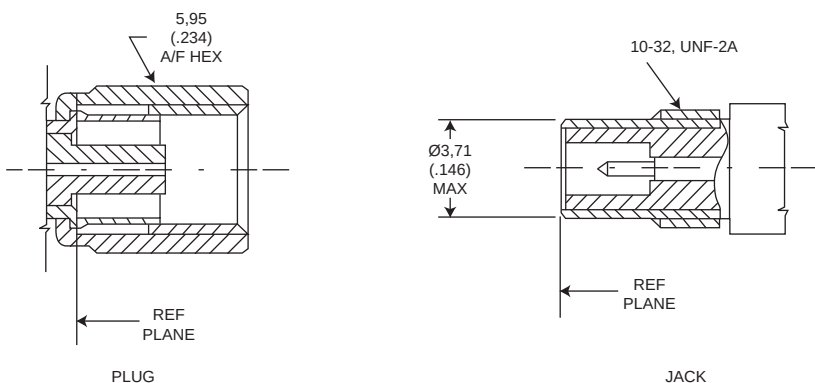
- Rapid connect / disconnect (SMB)
- Standoff legs on PCB
- Frequency range to 12.4 GHz (SMC) or 4 GHz (SMB)
- Vibration withstanding design (SMC)

MATING INTERFACES

SMB (SNAP-ON)



SMC (SCREW-ON)



NOTES

1) Inside diameter of female contact to meet VSWR mating characteristics and connector durability when mated with a 0.48 ± 0.53 (.019 $\pm$.021) diameter male contact.

2) All undimensioned pictorial representations are for reference purposes only.

3) Slide-on versions of most SMB female styles, prefix 052, are available. For slide-on male interconnection use male SMB (snap-on type).

SPECIFICATIONS

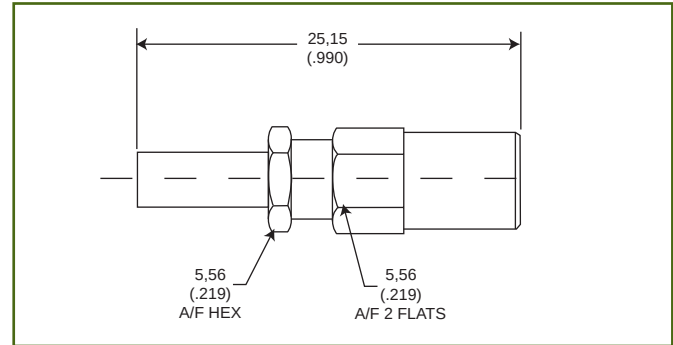
ELECTRICAL	Impedance	50Ω			
	Frequency Range	SMB = 0 to 4.0 GHz. SMC = 0 to 12.4 GHz			
	Voltage Rating	Connectors for RG196/U series cable: At Sea Level = 300 Vrms. At 21km (70k feet) = 75 Vrms Connectors for RG188/U series cable: At Sea Level = 400 Vrms. At 21km (70k feet) = 100 Vrms			
	Insulation Resistance	1000 MΩ minimum			
	Contact resistance	Center Contact = 6.0 m Ω maximum initial. 8.0 m Ω maximum after environment Outer Contact = 1.0 m Ω maximum initial. 1.5 m Ω maximum after environment Braid to Body = 1.0 m Ω maximum			
	Contact Current Rating	1.5 A dc maximum			
	Insertion Loss	0.25 dB maximum @ 4 GHz			
	RF Leakage	SMB = -55 dB minimum @ 2 - 3 GHz SMC = -60 dB minimum @ 2 - 3 GHz			
	Voltage Standing Wave Ratio (VSWR)	Connector Configuration			
	To 10 GHz or 80% of upper cut-off frequency of the cable, whichever is lower.	SMB			
MECHANICAL	Engagement Design	SMB			
	Engagement Forces	SMC			
	Mating Torque	Cable group			
	Locknut Torque	Straight			
	Coupling Nut Retention	Right Angle			
	Materials	Straight			
	Finish/Plating	Right Angle			
	Temperature Rating	Straight			
	Corrosion (salt spray)	Right Angle			
	Vibration, High Frequency Shock	Straight			
GENERAL	Connector Durability	RG196/U Series			
	Contact Captivation	RG188/U Series			
	Cable Retention	SMB per MIL-C-39012, Series SMB. SMC per MIL-C-39012, Series SMC.			
	Body Plating Options	SMB: Initial = 62 N (14 lbs.) max. engagement. After 500 matings = 62 N (14 lbs.) max. engagement and disengagement = 8.9 N (2 lbs.) min. disengagement. SMC: 0.11 Nm (16 in. oz.) torque max.			
		SMB: N/A SMC: 0.42 to 0.50 Nm (60 to 70 in.oz)			

STRAIGHT PLUGS AND JACKS

Straight Crimp Plug

Part Number	Cable Numbers
B51 - 024 - 0000220	RG174/U, 316/U
B51 - 024 - 3196220	RG178/U, 196/U
B51 - 024 - 9399220	RD316, 179

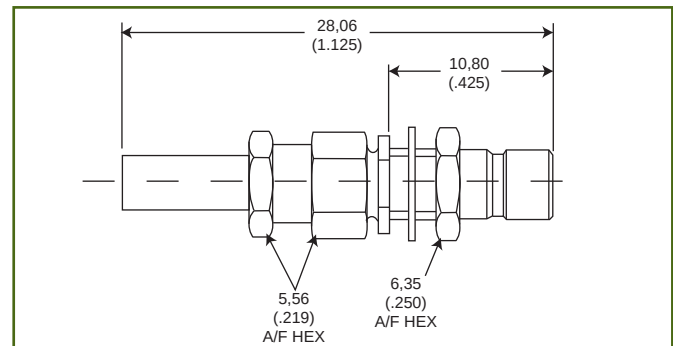
SMB connectors have solder center contacts.



Assembly Instructions BAI-003 (Page 50)

Straight Crimp Bulkhead Jack

Part Number	Cable Numbers
051 - 027 - 0000220	RG174/U, 316/U
051 - 027 - 3196220	RG178/U, 196/U
051 - 027 - 9399220	RD316, 179



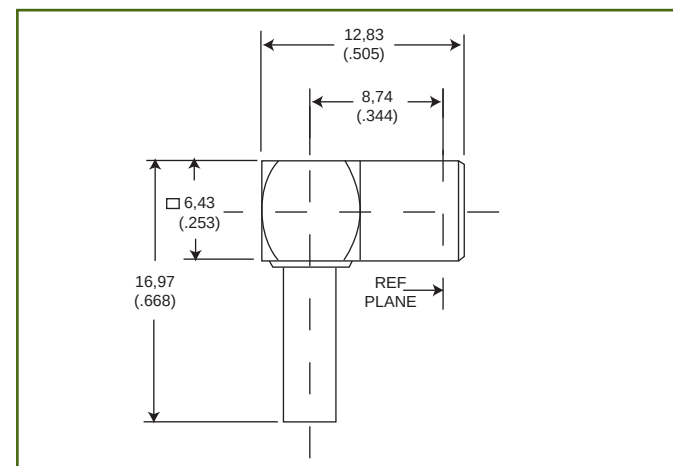
Mounting Plan V (Page 40)

Assembly Instructions BAI-003 (Page 50)

RIGHT ANGLE PLUGS

Right Angle Crimp Plug

Part Number	Cable Numbers
B51 - 328 - 3188220	RG174/U, 316/U
B51 - 328 - 3196220	RG178/U, 196/U
B51 - 328 - 9399220	RD316, 179
B51 - 328 - 9019AU0	BT3002, T2C75024

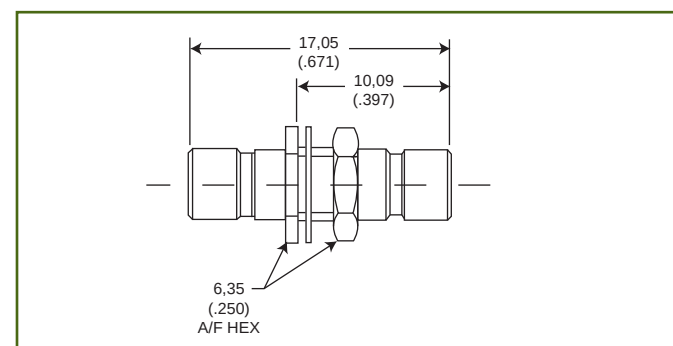


Assembly Instructions BAI-015 (Page 49)

IN-SERIES ADAPTORS

Jack to Jack Adaptor, Bulkhead Mounting

Part Number
051 - 075 - 0000220



Mounting Plan V (Page 40)

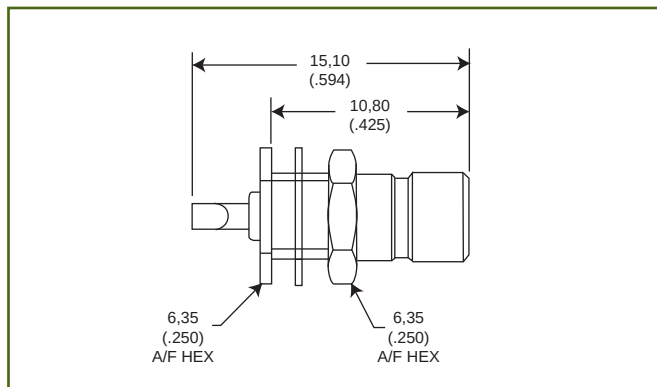


BULKHEAD JACKS

Straight Bulkhead Jack, Solder Pot,
Mounting Nut Outside Panel

Part Number

051 - 043 - 0000220

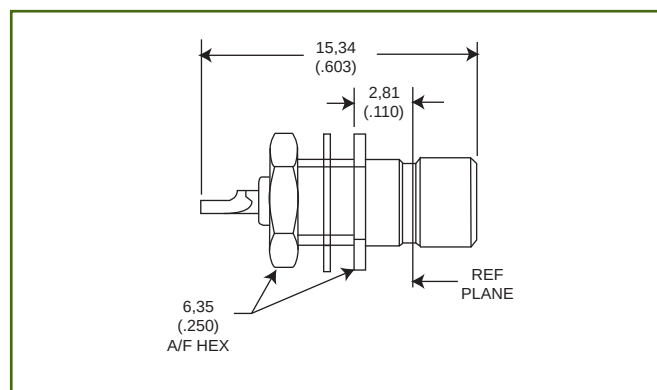


Mounting Plan V (Page 40)

Straight Bulkhead Jack, Solder Pot,
Mounting Nut Inside Panel

Part Number

051 - 045 - 0000220

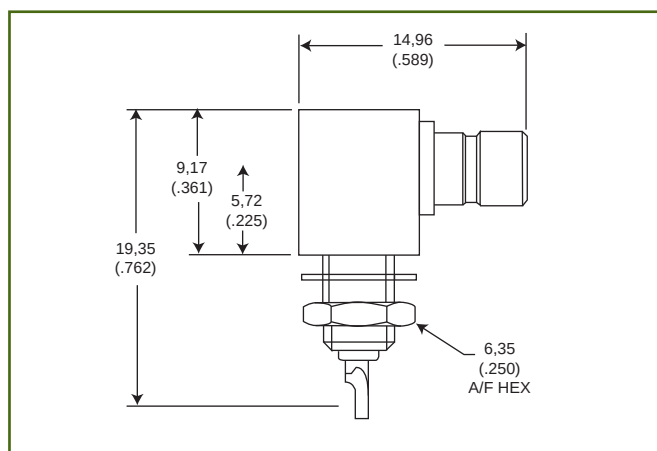


Mounting Plan V (Page 40)

Right Angle Bulkhead Jack, Solder Pot,
Mounting Nut Inside Panel

Part Number

051 - 047 - 0000220



Mounting Plan V (Page 40)

PRINTED CIRCUIT BOARD JACKS

SMB PCB preferred styles feature stepped legs. This allows the jacks to be raised from the surface of the PCB, thereby preventing the accumulation of soldering fluids and foreign bodies. A single piece conductor overcomes the problem of internal joint separation during continuous wave / flow soldering operations.

Straight PCB Jack, 1,00 (.039) sq Legs

Part Number

B51 - 351 - 0000220

Straight PCB Jack, 0,81 (.032) sq Legs

Part Number

B51 - 051 - 9029220

Right Angle PCB Jack, 1,00 (.039) sq Legs

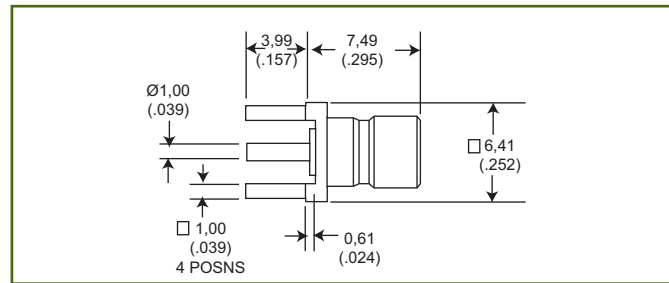
Part Number

B51 - 053 - 0000220

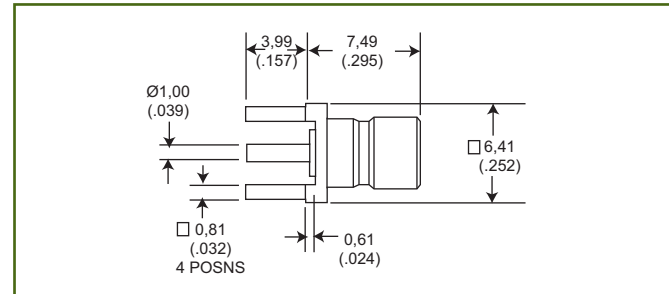
Right Angle PCB Jack, 0,81 (.032) sq Legs

Part Number

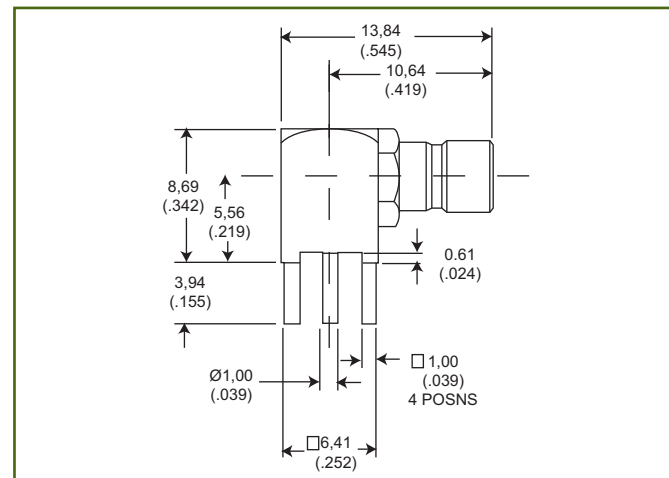
B51 - 053 - 9029220



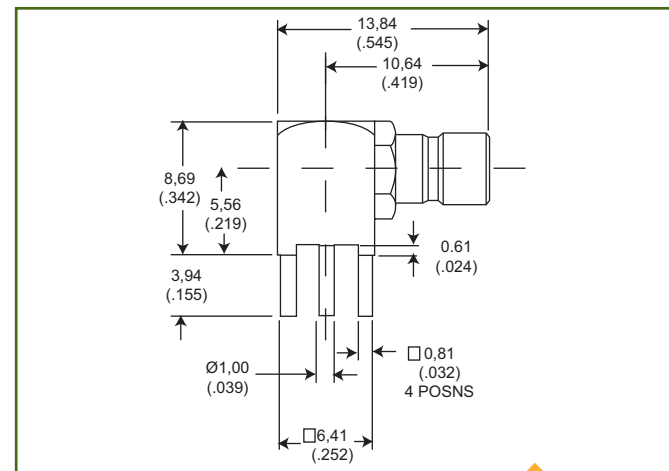
Mounting Plan A (Page 40)



Mounting Plan B (Page 40)



Mounting Plan A (Page 40)



Mounting Plan B (Page 40)



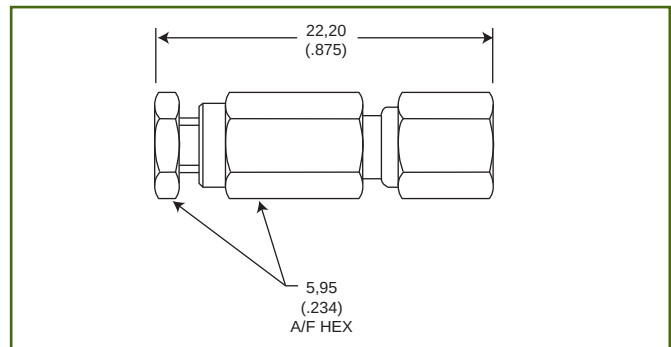
Dimensions shown in mm (inch)
Specifications and dimensions subject to change

www.ittcannon.com

STRAIGHT PLUGS AND JACKS**Straight Clamp Plug**

Part Number	Cable Numbers
050 - 007 - 0000220	RG174/U, 316/U

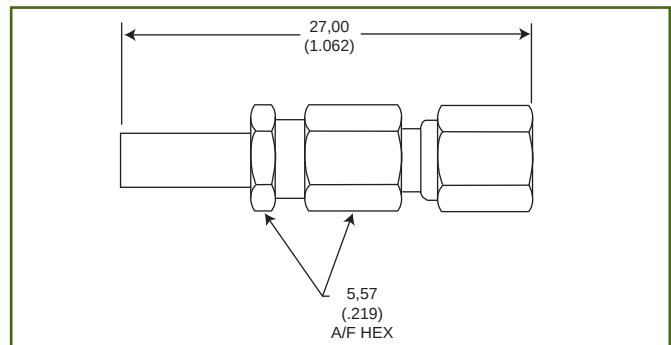
SMC CONNECTORS HAVE SOLDER CENTER CONTACTS



Assembly Instructions BAI-001 (Page 52)

Straight Crimp Plug

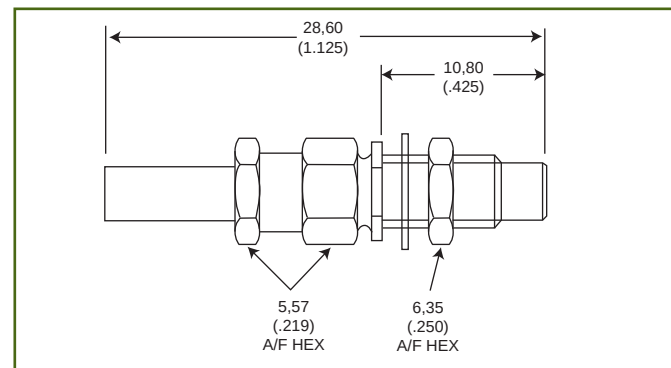
Part Number	Cable Numbers
050 - 024 - 0000220	RG174/U, 316/U



Assembly Instructions BAI-003 (Page 50)

Straight Crimp Bulkhead Jack

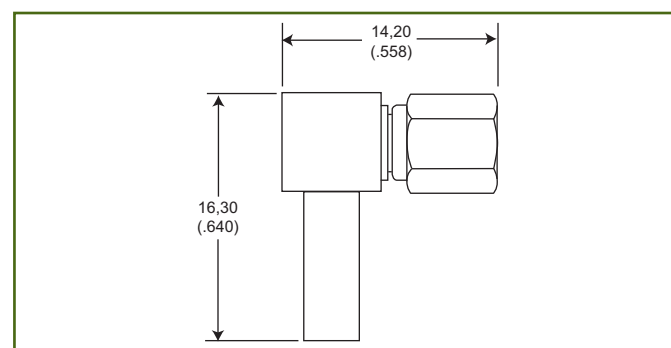
Part Number	Cable Numbers
050 - 027 - 0000220	RG174/U, 316/U



Mounting Plan V (Page 40)
 Assembly Instructions BAI-003 (Page 50)

RIGHT ANGLE PLUGS**Right Angle Crimp Plug**

Part Number	Cable Numbers
B50 - 328 - 3188220	RG174/U, 316/U
B50 - 328 - 9399220	RD316, 179



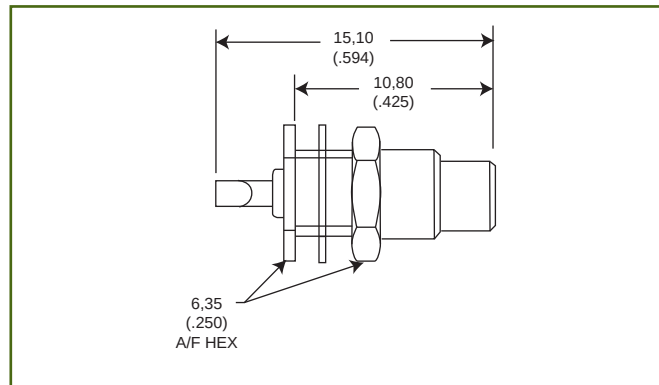
Assembly Instructions
 BAI-015 (Page 49)

BULKHEAD JACKS

Straight Bulkhead Jack, Solder Pot,
Mounting Nut outside Panel

Part Number

050 - 043 - 0000220

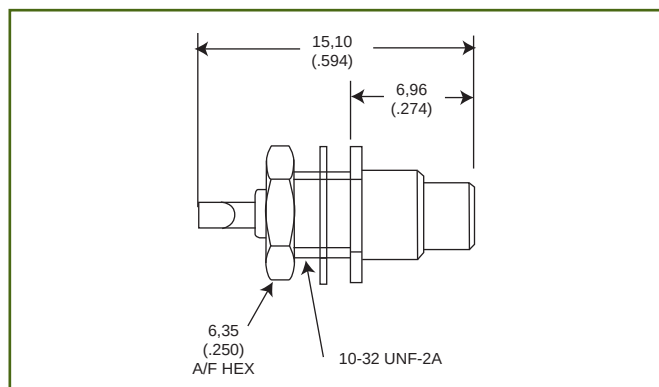


Mounting Plan V (Page 40)

Straight Bulkhead Jack, Solder Pot ,
Mounting Nut inside Panel

Part Number

050 - 045 - 0000220

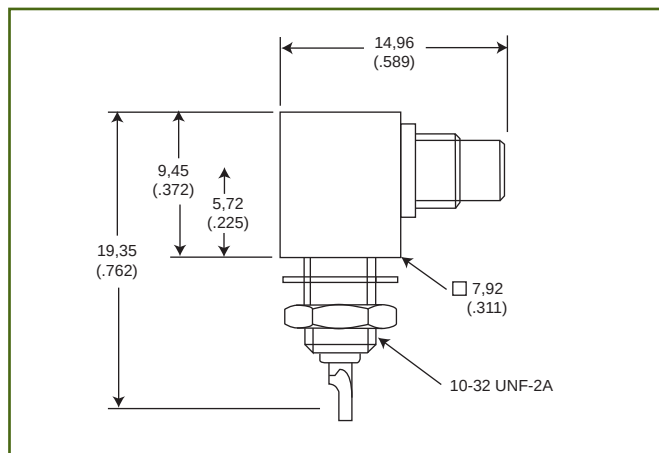


Mounting Plan V (Page 40)

Right Angle Bulkhead Jack, Solder Pot,
Mounting Nut inside Panel

Part Number

050 - 047 - 0000220



Mounting Plan V (Page 40)

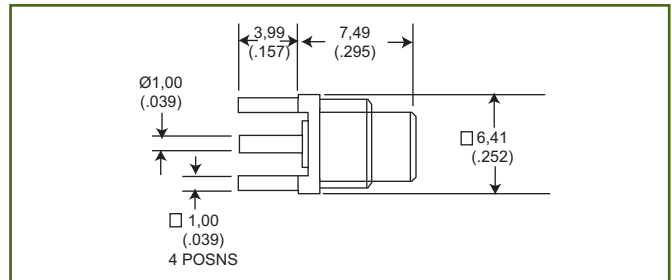
PRINTED CIRCUIT BOARD JACKS

SMC PCB preferred styles feature stepped legs. This allows the jacks to be raised from the surface of the PCB, thereby preventing the accumulation of soldering fluids and foreign bodies. A single piece conductor overcomes the problem of internal joint separation during continuous wave/flow soldering operations.

Straight PCB Jack, 1,00 (.039) square legs

Part Number

B50 - 051 - 0000220

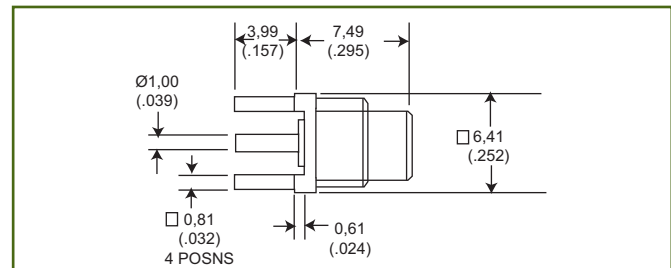


Mounting Plan A (Page 40)

Straight PCB Jack, 0,81 (.032) square legs

Part Number

B50 - 051 - 9019220

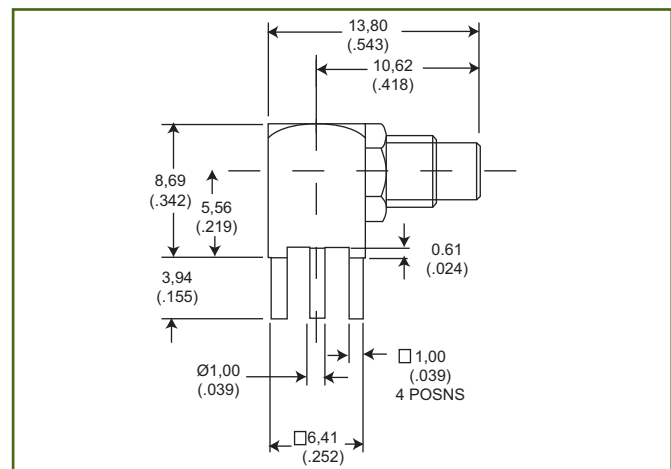


Mounting Plan B (Page 40)

Right Angle PCB Jack, 1,00 (.039) square legs

Part Number

B50 - 053 - 0000220

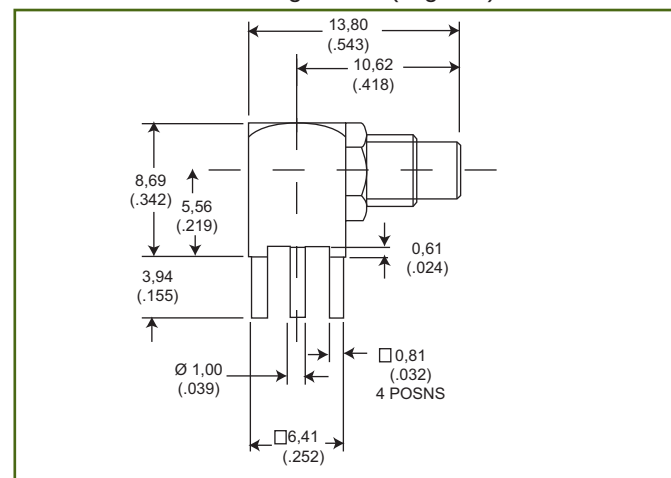


Mounting Plan A (Page 40)

Right Angle PCB Jack, 0,81 (.032) sq Legs

Part Number

B50 - 053 - 9019220



Mounting Plan B (Page 40)

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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[B51-024-0000220](#) [B51-351-0000220](#) [B51-328-3196220](#) [B51-024-9399220](#) [B51-328-9399220](#)