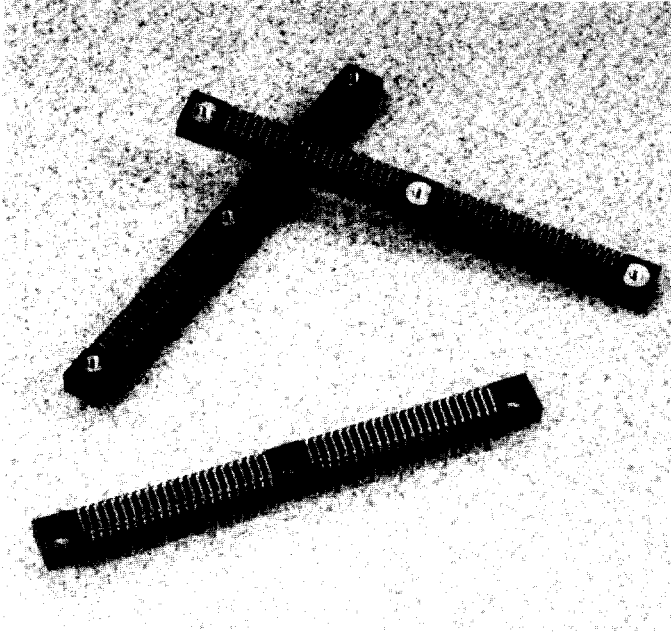# .025" (.635mm) Series 509 Compression Connectors

Features and Benefits

A new .025" center, .150" low profile compression connector which provides a solderless interface where board spacing is limited is available from Methode. Compression connectors are also available with .040", .050", .075", and .100" centerline spacing.

The design of the Surface Mate connector permits parallel PCB mating. The one piece connector is mechnically fastened (screwed, riveted, etc.) to the PC board or can be placed in a custom fit cavity in a housing. The contact is compressed against plated pads on the board.

It replaces not only a two-piece connector but soldering, wire stripping, crimping operations, as well as expensive application tooling, plus the cost savings of easy field repair. The high density and low profile connector saves PC board real estate.

Specifications

Materials

Contact Material: Beryllium copper

Contact Plating: .00030 (0.000762) min. thick gold on contact area and .000200 (0.00508) min thick tin-lead on solder tails, all over .000050 (0.00127) thick nickel

Insulator: Liquid crystal polymer, UL 94V-0

Normal Force: 50 grams, average
Durability: 50 cycles of engagement/disengagement
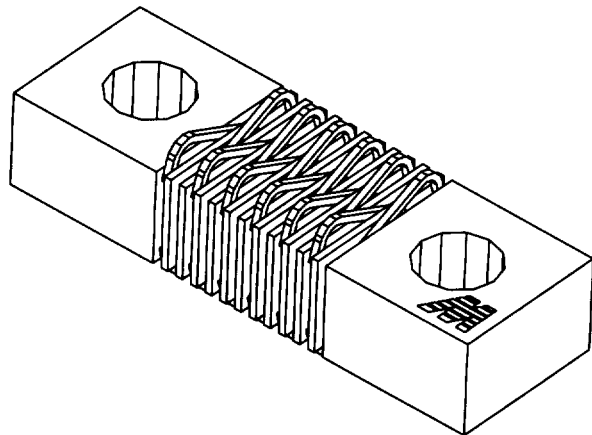**Contact Resistance:** 100 milliohms max.
Insulation Resistance: 100 milliohms min.
Rated Current: 1.0 amp
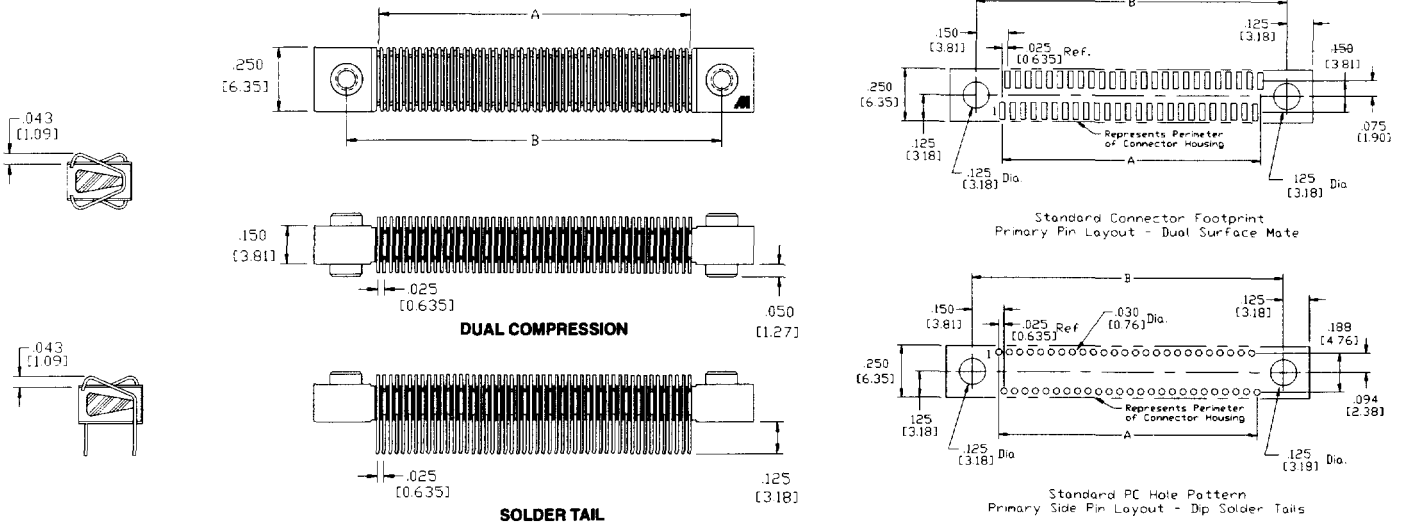**Operating Temperature:** -55°C to +85°C

Environmental Performance
Temperature Rating: -55°C to +85°C

50 Position

DUAL COMPRESSION

SOLDER TAIL

Standard Connector Footprint
Primary Pin Layout - Dual Surface Mate

Represents Perimeter
of Connector Housing

Standard PC Hole Pattern
Primary Side Pin Layout - Dip Solder Tails

No. of Pos.	Dimensions		Part Numbers	
	A	B	Dual Compression	Solder Tail
50	1.225 (31.12)	1.475 (37.46)	509-21-050SM-03-103	509-21-050DS1-03-23
*Consult Factory for other sizes				

90 Position

SECTION F-F

SECTION G-G

DUAL COMPRESSION

SOLDER TAIL

#2-56 THRU (3)

Standard Connector Footprint
Primary Pin Layout - Dual Surface Mate

Represents Perimeter
of Connector Housing

Standard PC Hole Pattern
Primary Side Pin Layout - Dip Solder Tails
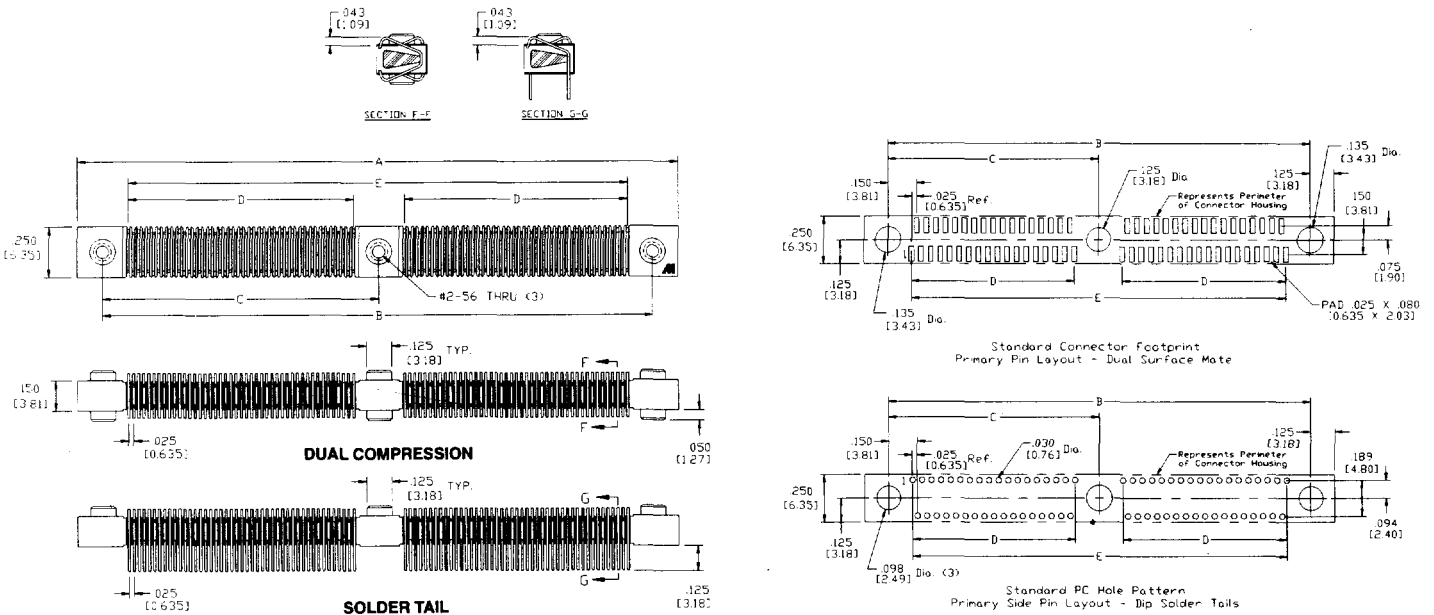
No. of Pos.	Dimensions					Part Numbers	
	A	B	C	D	E	Dual Compression	Solder Tail
90	2.950 (74.93)	2.700 (68.58)	1.350 (34.29)	1.100 (27.94)	2.450 (62.23)	509-21-050SM-03-103	509-21-050DS1-03-23
*Consult Factory for other sizes							