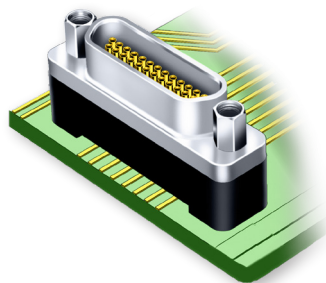




# MIL-DTL-83513/28 Thru /33 Micro-D CBS Condensed Straight PCB Terminated Connectors



**Space-Saving** — These connectors take up less room on the PC board. PC tail spacing is .075 inch (1.9mm) between rows.

**Threaded Inserts** — Stainless steel inserts are insert molded into plastic trays. These inserts provide a ground path from the PC board to the mating cable.

**Solder-Dipped** — Terminals are coated with Sn60/Pb40 tin-lead solder for best solderability.

## How To Order Straight PCB Micro-D Connectors

<b>Sample Part Number</b>	<b>M83513/</b>					<b>33-H</b>	<b>01</b>	<b>C</b>	<b>P</b>							
<b>Base Part Number</b>	<b>M83513/</b>															
<b>Slash Number-Shell Sizes</b>	<b>Plug (Pin Contacts)</b>			<b>Receptacle (Socket Contacts)</b>												
	<b>28-A</b> - 9 Contacts	<b>28-E</b> - 31 Contacts	<b>31-A</b> - 9 Contacts	<b>31-E</b> - 31 Contacts	<b>28-B</b> - 15 Contacts	<b>28-F</b> - 37 Contacts	<b>31-B</b> - 15 Contacts	<b>31-F</b> - 37 Contacts	<b>28-C</b> - 21 Contacts	<b>29-G</b> - 51 Contacts	<b>31-C</b> - 21 Contacts	<b>32-G</b> - 51 Contacts	<b>28-D</b> - 25 Contacts	<b>30-H</b> - 100 Contacts	<b>31-D</b> - 25 Contacts	<b>33-H</b> - 100 Contacts
	(See Table II)															
<b>PC Tail Length</b>	<b>01</b> - .109 Inch (2.77 mm)	<b>02</b> - .140 Inch (3.56 mm)	<b>03</b> - .172 Inch (4.37 mm)													
	<b>PC Tail Length ± .015 (0.38)</b>															
<b>Shell Finish</b>	<b>C</b> - Cadmium			<b>A</b> - Electrodeposited Aluminum												
	<b>N</b> - Electroless Nickel			<b>K</b> - Zinc Nickel												
	<b>P</b> - Passivated SST			<b>T</b> - Nickel Fluorocarbon Polymer												
<b>Hardware Options</b>	<b>N</b> - No Jackpost			<b>P</b> - Jackposts Installed												
	<b>Sizes 9-51</b>			<b>Shell Size 100 (H)</b>												
	<b>T</b> - Threaded Insert in Board Mount Hole (No Jackposts)			<b>U</b> - #4-40 Threaded Insert												
	<b>W</b> - Threaded Insert in Board Mount Hole and Jackposts Installed			<b>Y</b> - #4-40 Threaded Insert & Jackpost												
	(See Table I)															

Table I: Hardware Options

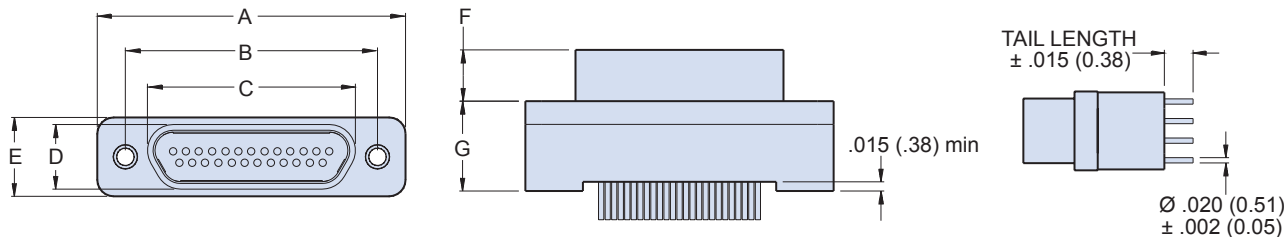
<b>HARDWARE OPTION N</b> NO JACKPOST, NO THREADED INSERT	<b>HARDWARE OPTIONS T or U</b> THREADED INSERT, NO POST	<b>HARDWARE OPTION P</b> JACKPOST AND THRU-HOLE	<b>HARDWARE OPTIONS W or Y</b> JACKPOST AND THREADED INSERT
<b>MTNG HOLE DIA.</b> 9-51 CONTACTS .096/.088 (2.44/2.24) 100 CONTACTS .150/.145 (3.81/3.68)	<b>THREAD SIZE</b> 9-51 CONTACTS # 2-56 UNC-2B 100 CONTACTS # 4-40 UNC-2B	<b>THREAD SIZE</b> 9-51 CONTACTS # 2-56 UNC 100 CONTACTS # 4-40 UNC <b>USE WITH .156 (3.96) MAX. PC BOARD THICKNESS</b>	<b>THREAD SIZE</b> 9-51 CONTACTS #2-56 UNC 100 CONTACTS #4-40 UNC

# MIL-DTL-83513/28 Thru /33 Micro-D CBS Condensed Straight PCB Terminated Connectors



Micro-D  
MIL-DTL-83513

Table III: Dimensions



Layout	A Max.		B		C Max.		D Max.		E Max.		F		G Max.	
	In.	mm.	In. ± .005	mm. ± 0.13	In.	mm.	In.	mm.	In.	mm.	In. ± .003	mm. ± 0.08	In.	mm.
<b>9P</b>	.785	19.94	.565	14.35	.333	8.46	.185	4.70	.310	7.87	.183	4.65	.355	9.02
<b>9S</b>	.785	19.94	.565	14.35	.400	10.16	.253	6.43	.310	7.87	.195	4.95	.355	9.02
<b>15P</b>	.935	23.75	.715	18.16	.483	12.27	.185	4.70	.310	7.87	.183	4.65	.355	9.02
<b>15S</b>	.935	23.75	.715	18.16	.551	14.00	.253	6.43	.310	7.87	.195	4.95	.355	9.02
<b>21P</b>	1.085	27.56	.865	21.97	.633	16.08	.185	4.70	.310	7.87	.183	4.65	.355	9.02
<b>21S</b>	1.085	27.56	.865	21.97	.701	17.81	.253	6.43	.310	7.87	.195	4.95	.355	9.02
<b>25P</b>	1.185	30.01	.965	24.51	.733	18.62	.185	4.70	.310	7.87	.183	4.65	.355	9.02
<b>25S</b>	1.185	30.01	.965	24.51	.801	20.35	.253	6.43	.310	7.87	.195	4.95	.355	9.02
<b>31P</b>	1.335	33.91	1.115	28.32	.883	22.43	.185	4.70	.310	7.87	.183	4.65	.355	9.02
<b>31S</b>	1.335	33.91	1.115	28.32	.951	24.16	.253	6.43	.310	7.87	.195	4.95	.355	9.02
<b>37P</b>	1.485	37.72	1.265	32.13	1.033	26.24	.185	4.70	.310	7.87	.183	4.65	.355	9.02
<b>37S</b>	1.485	37.72	1.265	32.13	1.101	27.96	.253	6.43	.310	7.87	.195	4.95	.355	9.02
<b>51P</b>	1.435	36.45	1.215	30.86	.983	24.97	.228	5.79	.400	10.16	.183	4.65	.355	9.02
<b>51S</b>	1.435	36.45	1.215	30.86	1.051	26.70	.296	7.52	.400	10.16	.195	4.95	.355	9.02
<b>100P</b>	2.170	55.12	1.800	45.72	1.383	35.13	.271	6.88	.510	12.95	.183	4.65	.430	10.92
<b>100S</b>	2.170	55.12	1.800	45.72	1.451	36.86	.333	8.46	.510	12.95	.195	4.95	.430	10.92

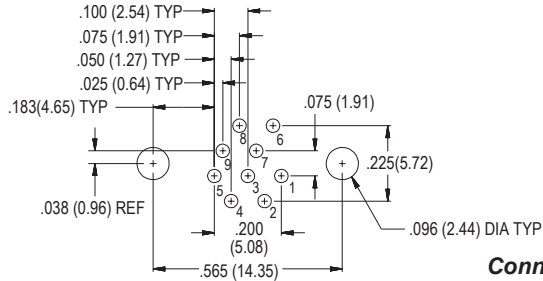
L



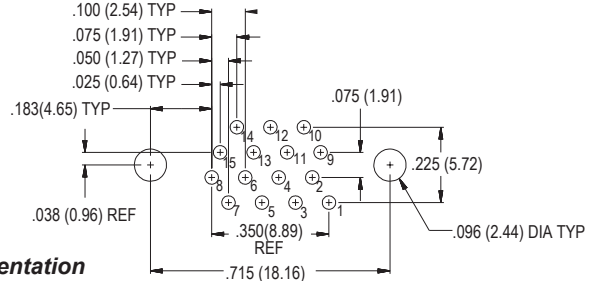
# MIL-DTL-83513/28 Thru /33 Micro-D CBS Condensed Straight PCB Terminated Connectors

## M83513/28 Thru 30 PCB Layouts – Pin Connectors

Patterns shown are for connector mounting side of PC board.

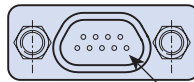


**9 PIN M83513/28-A**

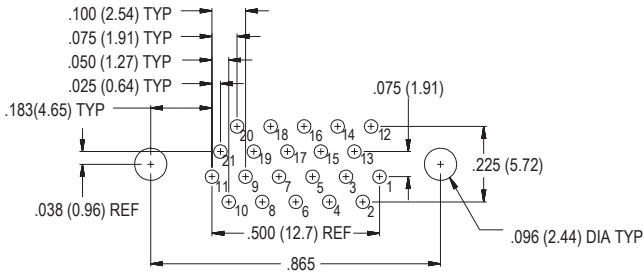


**15 PIN M83513/28-B**

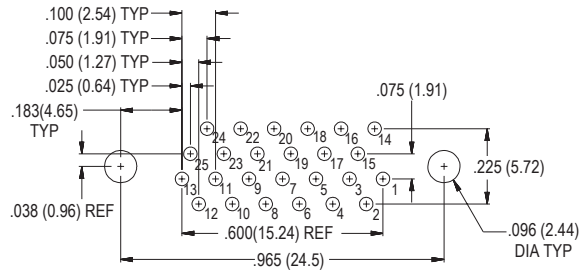
**Connector Orientation**



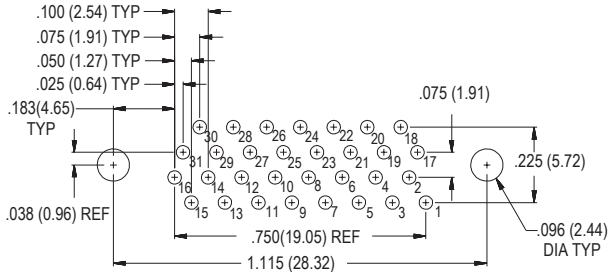
Pin #1



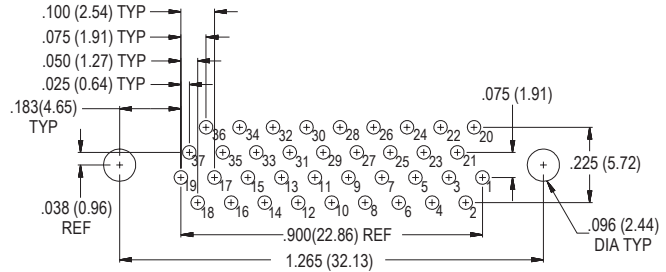
**21 PIN M83513/28-C**



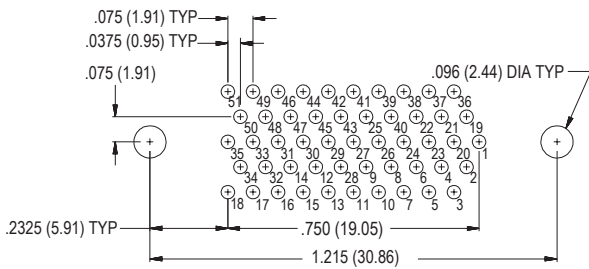
**25 PIN M83513/28-D**



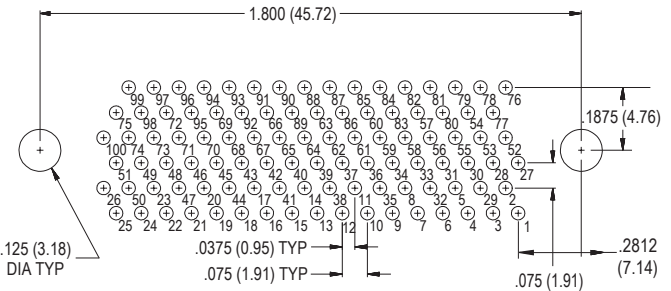
**31 PIN M83513/28-E**



**37 PIN M83513/28-F**



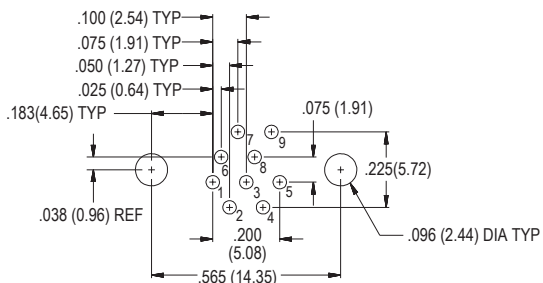
**51 PIN M83513/29-G**



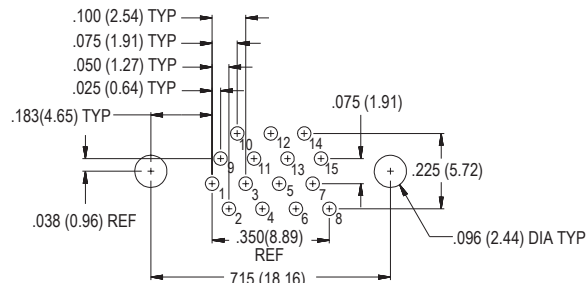
**100 PIN M83513/30-H**

### MM83513/31 Thru /33 PCB Layouts – Socket Connectors

Patterns shown are for connector mounting side of PC board.

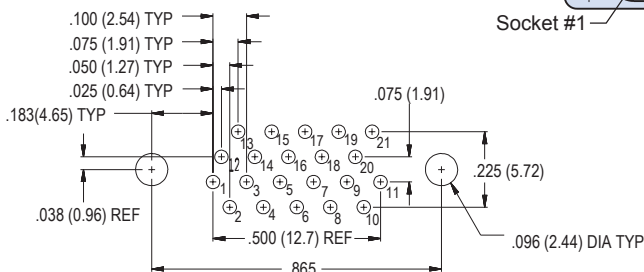
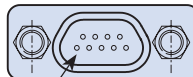


**9 SOCKET M83513/31-A**

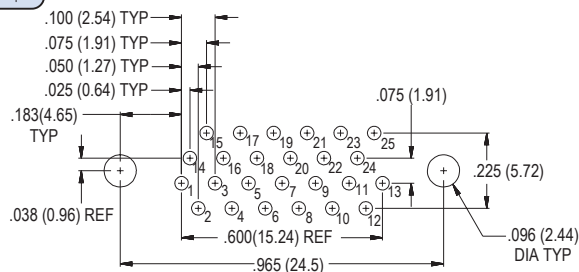


**15 SOCKET M83513/31-B**

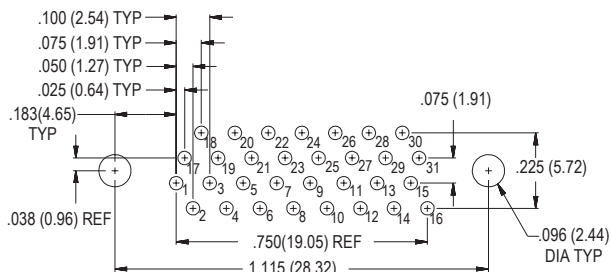
**Connector Orientation**



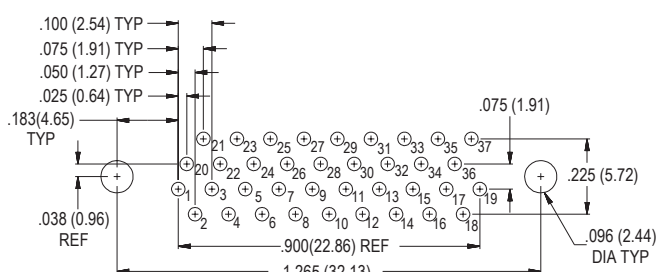
**21 SOCKET M83513/31-C**



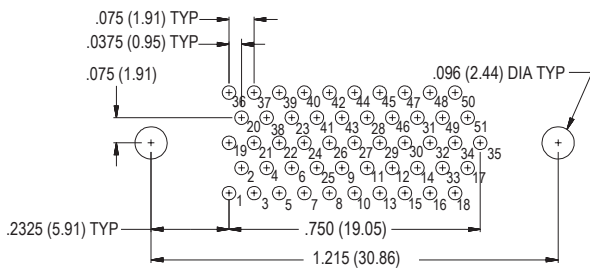
**25 SOCKET M83513/31-D**



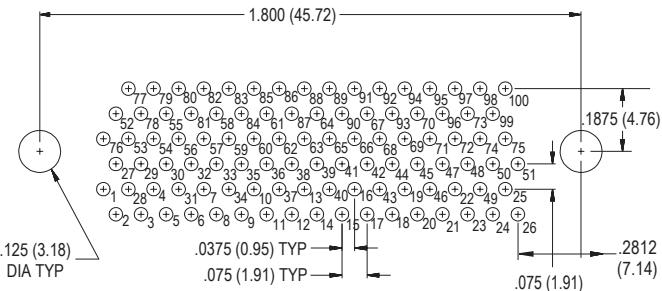
**31 SOCKET M83513/31-E**



**37 SOCKET M83513/31-F**



**51 SOCKET M83513/32-G**



**100 Socket M83513/33-H**