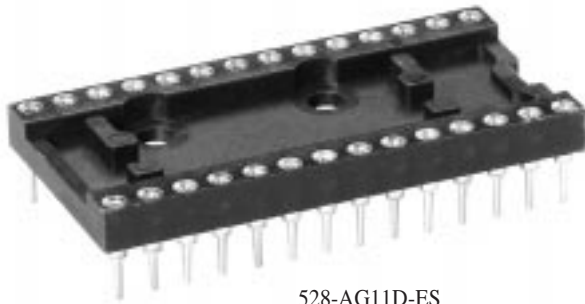
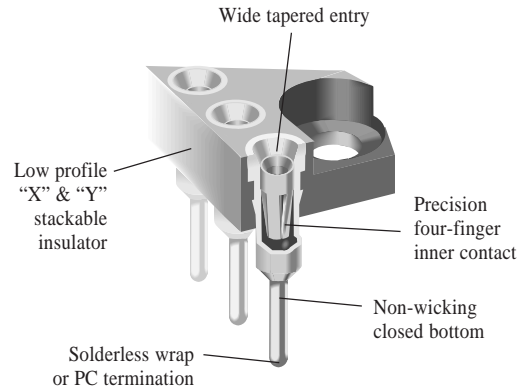


# 500 Series *DIP Socket with Four-Fingered Contact & Solid Insulator*

A




528-AG11D-ES



## FEATURES:

The Thomas & Betts 500 Series Socket features a precision four-finger inner contact to produce the industry standard for high reliability screw machine sockets.

- Precision four-finger inner contact provides concentric funnel entry for easy flat and round lead insertion
- Machined (Premium Series) and stamped (Economy Series) contacts are available
- "X" & "Y" stackable
- Non-wicking, closed bottom sleeve gives 100% protection against flux and solder contamination. Choice of solderless wrap or PC termination
- Accommodates 6 through 40 pin DIPS, rectangular or round leads
-  Recognized under the Component Program of Underwriters Laboratories, Inc. file no. E111362
- Beryllium copper inner contact for maximum mechanical and electrical performance
- For extreme conditions involving shock and vibration, Thomas & Betts' high retention series is available

## APPLICATION DIMENSIONS:

- PCB Thickness Range: Standard .062" and .092" (1,57 and 2,34)
- PCB Hole Size Range: .035" ± .002" (0,89 ± 0,05) PC tail, .055" ± .003" (1,40 ± 0,08) solderless wrap
- IC Pin Dimension Range: .009" x .015" (0,23 x 0,38) through .011" x .020" (0,28 x 0,51) round lead, .016" to .021" (0,41 to 0,53) round lead, .105" (2,67) min. length

## MATERIAL SPECIFICATIONS:

Insulator ..... Thermoplastic polyester, UL rated 94V-0  
 Sleeve ..... Machined brass/formed copper  
 Contact ..... Beryllium copper  
 Sleeve Plating ..... Tin/lead or gold  
 Contact Plating ..... Premium or Economy Series (ES) - gold or tin/lead  
 Economy Series (ESL) - low gold  
 Vapor Phase/IR Compatible

## PERFORMANCE SPECIFICATIONS:

### MECHANICAL

Vibration ..... Passed MIL-STD-1344, Method 2005.1, Condition II, 10 G's  
 Shock ..... Passed MIL-STD-1344, Method 2004.1, Condition C, 100 G's  
 Durability ..... Passed MIL-STD-1344, Method 2016  
 Normal Force ..... 125 Grams (4.4 oz.) average with .018" (0,46) dia. polished steel pin (Premium Series)  
 200 Grams (7.1 oz.) average with .018" (0,46) dia. polished steel pin (Economy Series)  
 Inner Contact Retention  
   in Sleeve ..... 7.5 Lbs. per line average  
 Sleeve Retention  
   in Plastic ..... 3.0 Lbs. per line minimum  
 Solderability ..... Passed MIL-STD-202F, Method 208  
 Insertion Force ..... Premium - 134 Grams (4.7 oz.) average with a .018" (0,46) dia. polished steel pin  
   Economy - 179 Grams (6.3 oz.) average with a .018" (0,46) dia. polished steel pin  
 Withdrawal Force ..... 63 Grams (2.2 oz.) average with a .018" (0,46) dia. polished steel pin (Premium and Economy)

### ELECTRICAL

Contact Resistance ..... 10 Milliohms max.  
 Contact Rating ..... 3 Amps  
 Capacitance ..... 1.0 pF per MIL-STD-202, Method 305 (contact to contact)  
 Insulation Resistance .... 5,000 Megohms min. @ 500 VDC per MIL-STD-1344, Method 3003.1  
 Dielectric Withstanding  
   Voltage ..... 1,000 Volts RMS per MIL-STD-1344, Method 3001.1

### ENVIRONMENTAL

Humidity ..... Passed MIL-STD-1344, Method 1002.2, Cond. II  
 Thermal Shock ..... Passed MIL-STD-1344, Method 1003.1, Cond. A  
 Operation Temperature .. Gold inner contact -55°C to +125°C,  
   Tin/lead inner contact -55°C to +105°C

# Thomas & Betts

# DIP Socket with Four-Fingered Contact & Solid Insulator 500 Series

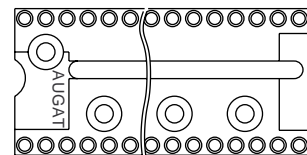


Figure 2

## STANDARD CONFIGURATIONS

Number of Contacts	A	B*	C	Number of Contacts	A	B*	C
6	.300 (7,62)	.300 (7,62)	.400 (10,16)	24	1.200 (30,48)	.400 (10,16)	.500 (12,70)
8	.400 (10,16)			24	1.200 (30,48)	.600 (15,24)	.700 (45,72)
14	.700 (17,78)			28	1.400 (35,56)		
16	.800 (20,32)			32	1.600 (40,64)		
18	.900 (22,86)			36	1.800 (47,72)		
20	1.000 (25,40)			40	2.000 (50,80)		
22	1.150 (29,21)	.400 (10,16)	.500 (12,70)				

\* Dimension B ± .005 (0,13)

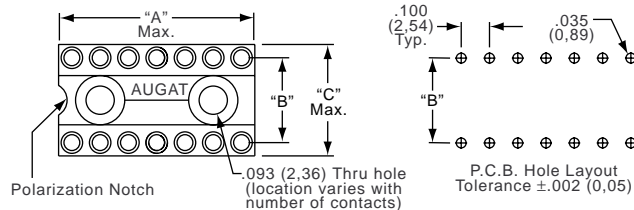
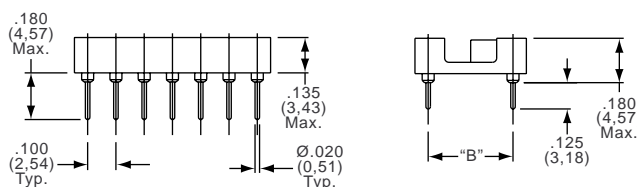


Figure 1



## PART NUMBERS

Economy Series	Premium	Figure	Position	Centerline	Contact	Sleeve	Economy Series	Premium	Figure	Position	Centerline	Contact	Sleeve
506-AG10D-ES	506-AG10D		6		Gold	Gold	524-AG65D-ES	524-AG65D		24		Gold	Gold
506-AG10D-ESL			6		Low Gold	Gold	524-AG65D-ESL			24		Low Gold	Gold
506-AG11D-ES	506-AG11D	1	6	.300 (7,62)	Gold	Tin/Lead	524-AG66D-ES	524-AG66D	2	24	.400 (10,16)	Gold	Tin/Lead
506-AG11D-ESL			6		Low Gold	Tin/Lead	524-AG66D-ESL			24		Low Gold	Tin/Lead
506-AG12D-ES	506-AG12D		6		Tin/Lead	Tin/Lead	524-AG13D-ES	524-AG13D		24		Tin/Lead	Tin/Lead
508-AG10D-ES	508-AG10D		8		Gold	Gold	524-AG10D-ES	524-AG10D		24		Gold	Gold
508-AG10D-ESL			8		Low Gold	Gold	524-AG10D-ESL			24		Low Gold	Gold
508-AG11D-ES	508-AG11D	1	8	.300 (7,62)	Gold	Tin/Lead	524-AG11D-ES	524-AG11D	2	24	.600 (15,24)	Gold	Tin/Lead
508-AG11D-ESL			8		Low Gold	Tin/Lead	524-AG11D-ESL			24		Low Gold	Tin/Lead
508-AG12D-ES	508-AG12D		8		Tin/Lead	Tin/Lead	524-AG12D-ES	524-AG12D		24		Tin/Lead	Tin/Lead
514-AG10D-ES	514-AG10D		14		Gold	Gold	528-AG10D-ES	528-AG10D		28		Gold	Gold
514-AG10D-ESL			14		Low Gold	Gold	528-AG10D-ESL			28		Low Gold	Gold
514-AG11D-ES	514-AG11D	1	14	.300 (7,62)	Gold	Tin/Lead	528-AG11D-ES	528-AG11D	2	28	.600 (15,24)	Gold	Tin/Lead
514-AG11D-ESL			14		Low Gold	Tin/Lead	528-AG11D-ESL			28		Low Gold	Tin/Lead
514-AG12D-ES	514-AG12D		14		Tin/Lead	Tin/Lead	528-AG12D-ES	528-AG12D		28		Tin/Lead	Tin/Lead
516-AG10D-ES	516-AG10D		16		Gold	Gold	532-AG10D-ES	532-AG10D		32		Gold	Gold
516-AG10D-ESL			16		Low Gold	Gold	532-AG10D-ESL			32		Low Gold	Gold
516-AG11D-ES	516-AG11D	1	16	.300 (7,62)	Gold	Tin/Lead	532-AG11D-ES	532-AG11D	2	32	.600 (15,24)	Gold	Tin/Lead
516-AG11D-ESL			16		Low Gold	Tin/Lead	532-AG11D-ESL			32		Low Gold	Tin/Lead
516-AG12D-ES	516-AG12D		16		Tin/Lead	Tin/Lead	532-AG12D-ES	532-AG12D		32		Tin/Lead	Tin/Lead
518-AG10D-ES	518-AG10D		18		Gold	Gold	536-AG10D-ES	536-AG10D		36		Gold	Gold
518-AG10D-ESL			18		Low Gold	Gold	536-AG10D-ESL			36		Low Gold	Gold
518-AG11D-ES	518-AG11D	1	18	.300 (7,62)	Gold	Tin/Lead	536-AG11D-ES	536-AG11D	2	36	.600 (15,24)	Gold	Tin/Lead
518-AG11D-ESL			18		Low Gold	Tin/Lead	536-AG11D-ESL			36		Low Gold	Tin/Lead
518-AG12D-ES	518-AG12D		18		Tin/Lead	Tin/Lead	536-AG12D-ES	536-AG12D		36		Tin/Lead	Tin/Lead
520-AG10D-ES	520-AG10D		20		Gold	Gold	540-AG10D-ES	540-AG10D		40		Gold	Gold
520-AG10D-ESL			20		Low Gold	Gold	540-AG10D-ESL			40		Low Gold	Gold
520-AG11D-ES	520-AG11D	1	20	.300 (7,62)	Gold	Tin/Lead	540-AG11D-ES	540-AG11D	2	40	.600 (15,24)	Gold	Tin/Lead
520-AG11D-ESL			20		Low Gold	Tin/Lead	540-AG11D-ESL			40		Low Gold	Tin/Lead
520-AG12D-ES	520-AG12D		20		Tin/Lead	Tin/Lead	540-AG12D-ES	540-AG12D		40		Tin/Lead	Tin/Lead
522-AG10D-ES	522-AG10D		22		Gold	Gold	Note: Part numbers in this chart and in detail shown refer to a .125" PC Tail Pin						
522-AG10D-ESL			22		Low Gold	Gold							
522-AG11D-ES	522-AG11D	1	22	.400 (10,16)	Gold	Tin/Lead							
522-AG11D-ESL			22		Low Gold	Tin/Lead							
522-AG12D-ES	522-AG12D		22		Tin/Lead	Tin/Lead							

## ECONOMY AND PREMIUM SERIES - .180" PC TAIL PINS

- 5XX-AG44D-XXX - Gold contact, tin/lead sleeve
- 5XX-AG45D-XXX - Gold contact, gold sleeve
- 5XX-AG143D-XXX - Tin/lead contact, tin/lead sleeve

## HIGH RETENTION SERIES

- 5XX-AG34D - Gold contact, tin/lead sleeve
- 5XX-AG33D - Gold contact, gold sleeve
- 5XX-AG138D - Tin/lead contact, tin/lead sleeve

For wire wrap sockets or 24 position on .400" (10,16) in high retention or .180 (4,57) tails, please consult factory.

## Need more technical information?

Consult your Thomas & Betts sales office listed on the back cover

Thomas & Betts  
1555 Lynnfield Road  
Memphis, TN 38119  
(901) 682-8221 FAX (901) 537-8805

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Тел: +7 (812) 336 43 04 (многоканальный)  
Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)