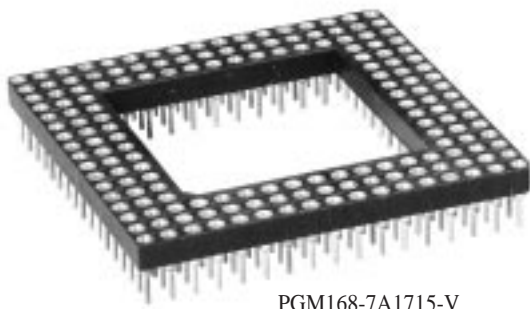
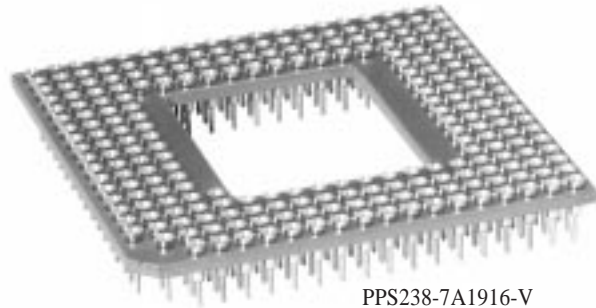


# PGM & PPS Series *Pin Grid Array Sockets*




PGM168-7A1715-V



PPS238-7A1916-V

## FEATURES:

- LIF & SUPERLIF™ Low insertion and withdrawal force contacts
- Non-wicking closed bottom, precision sleeve protects 100% against flux and solder contamination
- Custom design capabilities
- Available in molded plastic (PGM) and glass epoxy (PPS) insulators
-  Recognized under the Component Program of Underwriters Laboratories, Inc. File E111362
- High temperature insulators allow the sockets to be soldered with vaporphase and infrared reflow soldering process

## MATERIAL SPECIFICATIONS:

Insulator ..... Thermoplastic polyester or glass epoxy,  
UL rated 94V-0

Sleeve ..... Machined brass/formed copper

Contact ..... Beryllium copper

Sleeve Plating ..... See Table 1

Contact Plating ..... See Table 1

## PERFORMANCE SPECIFICATIONS:

### MECHANICAL

Vibration ..... Passed MIL-STD-1344, Method 2005.1,  
Condition V, D, 11.6 G's (RMS)

Shock ..... Passed MIL-STD-1344, Method 2004.1,  
Condition C, 100 G's

Durability ..... Passed MIL-STD-1344, Method 2016, 50 cycles

Solderability ..... Passed MIL-STD-202F, Method 208

Insertion Force ..... Above 150 pins - 37 Grams (1.3 oz.) average with  
SUPERLIF™ a .018" (0,46) dia. polished steel pin

Insertion Force ..... Below 150 pins - 50 Grams (1.7 oz.) average with  
LIF a .018" (0,46) dia. polished steel pin

Withdrawal Force ..... Above 150 pins - 15 Grams (.52 oz.) average with  
SUPERLIF™ a .018" (0,46) dia. polished steel pin

Withdrawal Force ..... Below 150 pins - 20 Grams (.70 oz.) average with  
LIF a .018" (0,46) dia. polished steel pin

### ELECTRICAL

Contact Resistance ..... 10 Milliohms

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, Type II

Operation Temperature .. Gold inner contact -55°C to +125°C  
Tin/lead inner contact -55°C to +105°C

Thermal Shock ..... Passed MIL-STD-1344, Method 1003.1, Cond. A

## HOW TO ORDER

<b>P</b>	□ □ □ □ □	—	□ □ □ □ □	—	<b>V</b>
	Number of Contacts		Pin Selection (Table 2)	Grid size	Footprint Options (Pg. D23)
	GM - Molded Thermoplastic Polyester PS - Glass Epoxy SM - Molded Standoffs (refer to fig. 1)		Plating Options (Table 1)		Low Force, Six Finger Contact
Part Number Example: PGM068-1A1132-V					

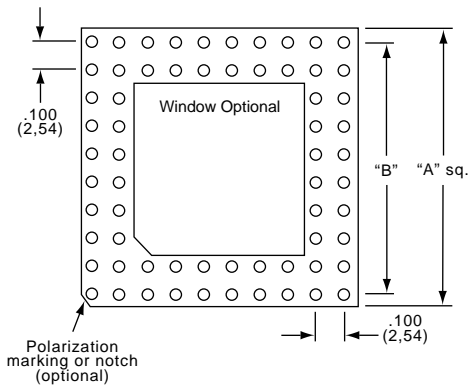
# Thomas & Betts

Quality & Innovation From **AUGAT**® Name Brand Products

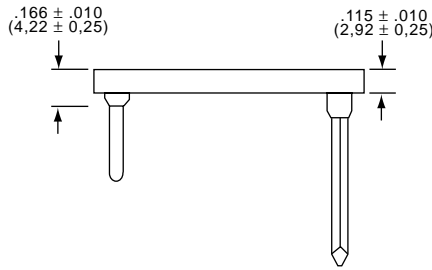
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Thomas & Betts  
1555 Lynnfield Road  
Memphis, TN 38119  
(901) 682-8221 FAX (901) 537-8805

# Pin Grid Array Sockets PGM & PPS Series

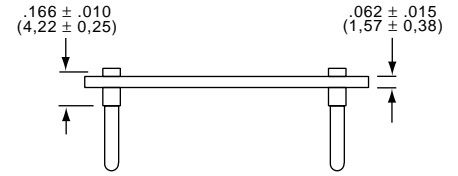


## MOLDED INSULATOR



Note: Head of sleeve is recessed in .030" counter bore

## GLASS EPOXY INSULATOR



Note: Head of sleeve sits above insulator

TABLE 1 - PLATING FINISHES

Plating Designation	Sleeve Type	Contact Plating	Sleeve Plating
1 2 3 7	PC Tails	Gold Gold Tin/Lead Low Gold	Tin/Lead Gold Tin/Lead Tin/Lead
4 5 6	Solderless Wrap *	Gold Gold Tin/Lead	Tin/Lead Gold Tin/Lead

\* Solderless Wrap available only in molded thermoplastic insulator.

TABLE 2 - SLEEVE TYPES

PC Tails		Solderless Wrap*	
Designation	"X" Dimension	Designation	"X" Dimension
A	.125" (3,17)		
B	.180" (4,57)	D	.510" (12,95)

## INSULATOR DIMENSIONS

Insulator Size	"A"		"B"
	Molded Insulators	Glass Epoxy Insulators	
9 X 9	.90	.950	.800
10 X 10	1.00	1.050	.900
11 X 11	1.10	1.150	1.000
12 X 12	1.20	1.250	1.100
13 X 13	1.30	1.350	1.200
14 X 14	1.40	1.450	1.300
15 X 15	1.50	1.550	1.400
16 X 16	1.60	1.650	1.500
17 X 17	1.70	1.750	1.600
18 X 18	1.80	1.850	1.700
19 X 19	1.90	1.950	1.800
20 X 20	2.00	2.050	1.900
21 X 21	2.10	2.150	2.000
22 X 22	N/A	2.250	2.100
23 X 23	N/A	2.350	2.200
24 X 24	N/A	2.450	2.300
25 X 25	N/A	2.550	2.400

Dimensions listed are nominal

## Need more technical information?

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

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