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REVISIONS

	LOC	DIST		
P	LTR		DESCRIPTION	DATE	DWN	APVD
C	REV PER ECO-07-017102		21SEP07	PY	BW

RAISED CAVITY INDENTIFICATION NUMBERS

R .106 [2.69] TYP
.102 [2.59]

φ .125 [3.18] 2 PLC
.115 [2.92]

DIM B
DIM E
DIM D
DIM C
DIM A

10° TYP
MATING FACE

SEE DETAIL K

φ .043 [1.09] TYP
.037 [0.94]

10° TYP

DIM J
DIM H

R .092 [2.34] TYP
.062 [1.57]
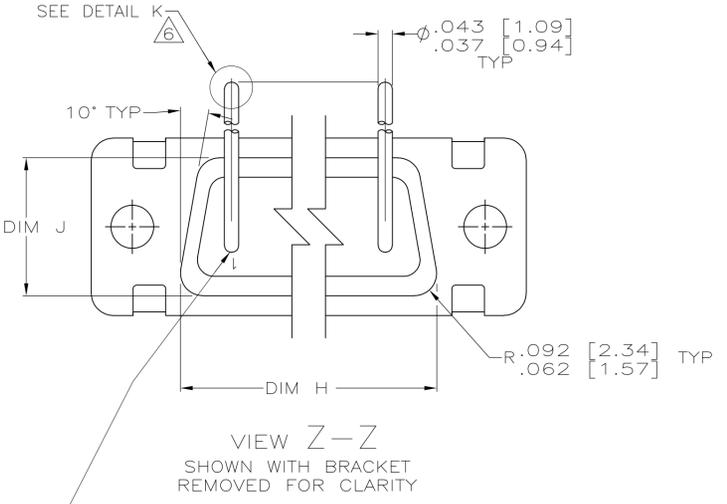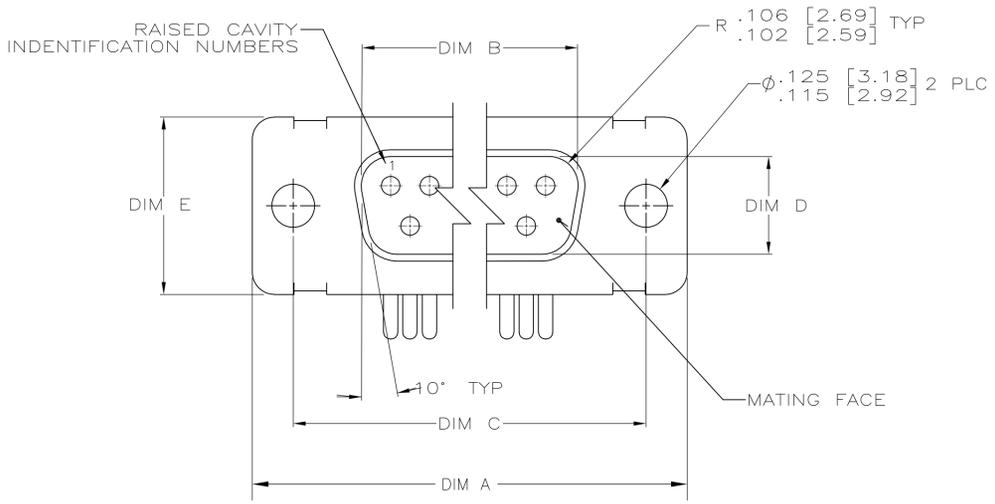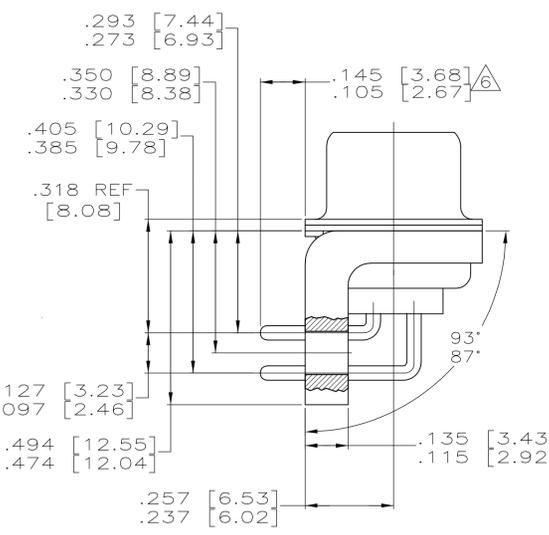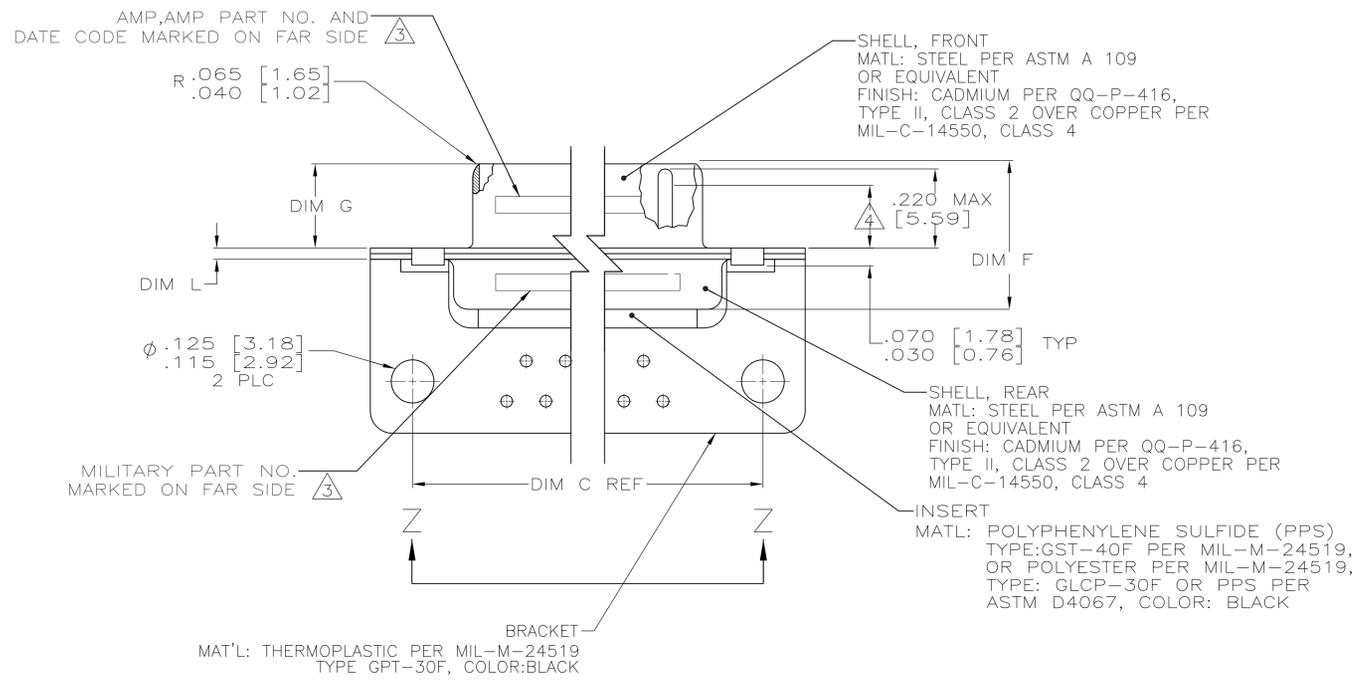
VIEW Z-Z
SHOWN WITH BRACKET
REMOVED FOR CLARITY

CONTACT (QTY = NO. OF POSN)
MATL: BRASS PER ASTM-B-16, OR BERYLLIUM
COPPER PER ASTM-B-194
FINISH: GOLD PER MIL-G-45204, TYPE II,
GRADE C, CLASS I IN CONTACT MATING AREA,
.000010 [0.0003] MIN THK GOLD PER MIL-G-45204
OVER .000050 [0.0013] MIN THK NICKEL
PER QQ-N-290 ON CONTACT BODY

NOTES:

⚠1 SEE SHEET 2 FOR RECOMMENDED P.C. BOARD LAYOUT. TRUE POSITION TOLERANCE FOR P.C.BOARD LAYOUT IS .010 [0.25] AT MAX MATERIAL CONDITION. SUGGESTED BOARD THICKNESS IS .062 [1.57]

2. THE CONNECTORS DESCRIBED IN THIS DOCUMENT MEET THE REQUIREMENTS OF MIL-C-24308 AND MATE WITH ANY RECEPTACLE CONNECTOR WITH SAME INSERT ARRANGEMENT.

⚠3 MARKED WITH .047 [1.19]-.062 [1.57] HIGH CHARACTERS.
FAR SIDE REFERS TO THE WIDE SIDE OF THE KEYSTONE.
NEAR SIDE REFERS TO THE NARROW SIDE OF THE KEYSTONE.
IF THE REAR SHELL IS TOO SMALL FOR THE ENTIRE MILITARY PART NUMBER, MARKING SHALL BE LOCATED AS FOLLOWS:
    A. "M24308" ON FRONT SHELL, FAR SIDE.
    B. SLASH SHEET AND DASH NUMBER ON REAR SHELL, FAR SIDE.
    C. "AMP" AND DATE CODE ON FRONT SHELL, NEAR SIDE.
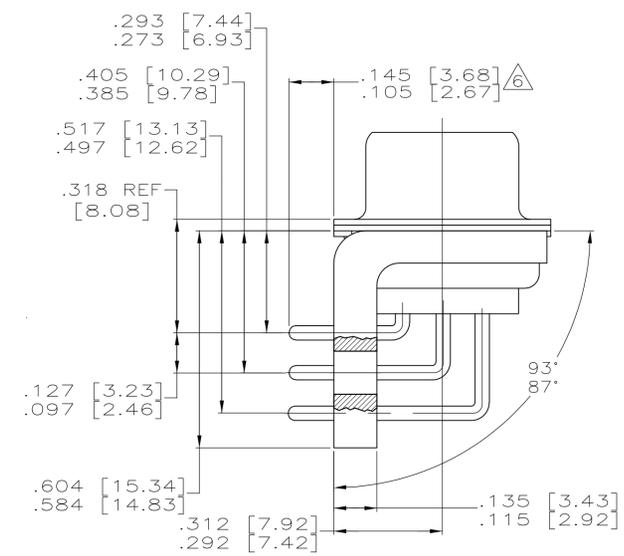   D. AMP PART NUMBER ON REAR SHELL, NEAR SIDE.

IF THE FRONT SHELL IS TOO SMALL FOR "AMP", AMP PART NUMBER AND DATE CODE, MARKING SHALL BE SPLIT AS FOLLOWS:
    A. AMP PART NUMBER ON REAR SHELL, NEAR SIDE.
    B. "AMP" AND DATE CODE ON FRONT SHELL, NEAR SIDE.
    C. MILITARY PART NUMBER ON REAR SHELL, FAR SIDE.

⚠4 REQUIREMENT FOR FULL PIN DIAMETER EXTENSION:
.159 [4.04] MIN, SHELL SIZES 1 AND 2.
.150 [3.81] MIN, SHELL SIZES 3 AND 4.

5. THIS DRAWING SHALL BE INTERPRETED IN ACCORDANCE WITH APPLICABLE STANDARDS LISTED IN MIL-STD-100.

⚠6 SOLDER DIPPED PER MIL-STD-2000 COMPOSITION Sn63 CONFORMING TO QQ-S-571 IN THE ENTIRE AREA OF DIMENSION SHOWN. 1218442-6 THRU -10 ONLY.

AMP,AMP PART NO. AND
DATE CODE MARKED ON FAR SIDE ⚠3

R .065 [1.65]
.040 [1.02]

DIM G
DIM L

φ .125 [3.18] 2 PLC
.115 [2.92]

MILITARY PART NO.
MARKED ON FAR SIDE ⚠3

SHELL, FRONT
MATL: STEEL PER ASTM A 109 OR EQUIVALENT
FINISH: CADMIUM PER QQ-P-416,
TYPE II, CLASS 2 OVER COPPER PER MIL-C-14550, CLASS 4

.220 MAX [5.59]

DIM F

⚠4

.070 [1.78] TYP
.030 [0.76]

SHELL, REAR
MATL: STEEL PER ASTM A 109 OR EQUIVALENT
FINISH: CADMIUM PER QQ-P-416,
TYPE II, CLASS 2 OVER COPPER PER MIL-C-14550, CLASS 4

INSERT
MATL: POLYPHENYLENE SULFIDE (PPS)
TYPE:GST-40F PER MIL-M-24519,
OR POLYESTER PER MIL-M-24519,
TYPE: GLCP-30F OR PPS PER ASTM D4067, COLOR: BLACK

DIM C REF

Z — Z

BRACKET
MAT'L: THERMOPLASTIC PER MIL-M-24519
TYPE GPT-30F, COLOR:BLACK

.293 [7.44]
.273 [6.93]

.350 [8.89]
.330 [8.38]

.405 [10.29]
.385 [9.78]

.318 REF [8.08]

.145 [3.68] ⚠6
.105 [2.67]

.127 [3.23]
.097 [2.46]

93°
87°

.494 [12.55]
.474 [12.04]

.135 [3.43]
.115 [2.92]

.257 [6.53]
.237 [6.02]

SHELL SIZES 1 THRU 4 CONTACT CONFIGURATION

.293 [7.44]
.273 [6.93]

.405 [10.29]
.385 [9.78]

.517 [13.13]
.497 [12.62]

.318 REF [8.08]

.145 [3.68] ⚠6
.105 [2.67]

.127 [3.23]
.097 [2.46]

93°
87°

.604 [15.34]
.584 [14.83]

.312 [7.92]
.292 [7.42]

.135 [3.43]
.115 [2.92]

SHELL SIZE 5 CONTACT CONFIGURATION

.030 [0.76] MAX
EXTENSION PERMISSIBLE
DUE TO SOLDER DIP

DETAIL K ⚠6
SCALE 8:1
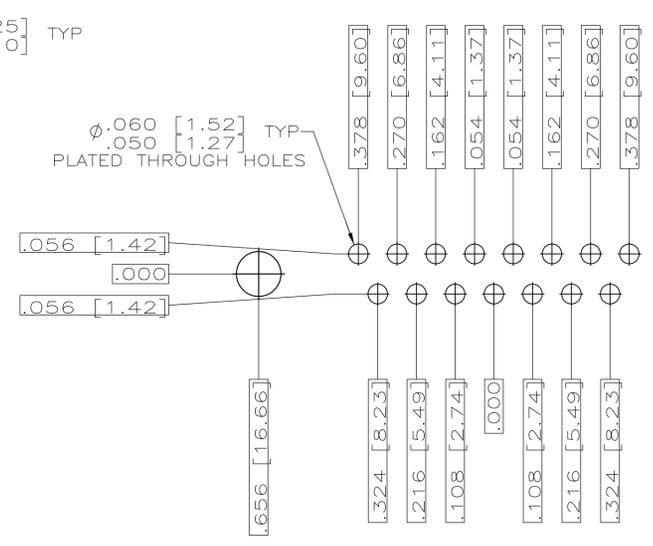FOR 1218442-6 THRU -10 ONLY

DIM L	DIM J	DIM H	DIM G	DIM F	DIM E	DIM D	DIM C	DIM B	DIM A	INSERT ARRANGEMENT	NO OF POS	SHELL SIZE	MILITARY P/N ON CONNECTOR ⚠3	AMP P/N MARKED ON CONNECTOR ⚠3	AMP PART NO.
.049 [1.24] / .029 [0.74]	.544 [13.82] / .524 [13.31]	2.188 [55.58] / 2.168 [55.07]	.236 [5.99] / .224 [5.69]	.436 [11.07] / .416 [10.57]	.620 [15.75] / .590 [14.99]	.446 [11.33] / .436 [11.07]	2.411 [61.24] / 2.401 [60.99]	2.084 [52.55] / 2.074 [52.30]	2.650 [67.31] / 2.620 [66.55]	MS18277-1	50	5	M24308/24-41F	1218442-5	1-1218442-0 ⚠6
.049 [1.24] / .029 [0.74]	.432 [10.97] / .412 [10.46]	2.282 [57.96] / 2.262 [57.45]	.236 [5.99] / .224 [5.69]	.436 [11.07] / .416 [10.57]	.509 [12.93] / .479 [12.17]	.334 [8.48] / .324 [8.23]	2.505 [63.63] / 2.495 [63.37]	2.187 [54.97] / 2.177 [54.71]	2.744 [69.70] / 2.714 [68.94]	MS18276-1	37	4	M24308/24-40F	1218442-4	1218442-9 ⚠6
.049 [1.24] / .029 [0.74]	.432 [10.97] / .412 [10.46]	1.635 [41.53] / 1.615 [41.02]	.236 [5.99] / .224 [5.69]	.436 [11.07] / .416 [10.57]	.509 [12.93] / .479 [12.17]	.334 [8.48] / .324 [8.23]	1.857 [47.17] / 1.847 [46.91]	1.539 [38.51] / 1.529 [38.25]	2.103 [53.42] / 2.073 [52.65]	MS18275-1	25	3	M24308/24-39F	1218442-3	1218442-8 ⚠6
.040 [1.02] / .020 [0.51]	.432 [10.97] / .412 [10.46]	1.093 [27.76] / 1.073 [27.25]	.238 [6.05] / .229 [5.82]	.432 [10.97] / .412 [10.46]	.509 [12.93] / .479 [12.17]	.334 [8.48] / .324 [8.23]	1.317 [33.45] / 1.307 [33.20]	.999 [24.79] / .989 [24.54]	1.556 [39.52] / 1.526 [38.76]	MS18274-1	15	2	M24308/24-38F	1218442-2	1218442-7 ⚠6
.040 [1.02] / .020 [0.51]	.432 [10.97] / .412 [10.46]	.769 [19.53] / .749 [19.02]	.238 [6.05] / .229 [5.82]	.432 [10.97] / .412 [10.46]	.509 [12.93] / .479 [12.17]	.334 [8.48] / .324 [8.23]	.989 [25.12] / .979 [24.87]	.671 [16.46] / .661 [16.21]	1.228 [31.19] / 1.198 [30.43]	MS18273-1	9	1	M24308/24-37F	1218442-1	1218442-6 ⚠6
.049 [1.24] / .029 [0.74]	.544 [13.82] / .524 [13.31]	2.188 [55.58] / 2.168 [55.07]	.236 [5.99] / .224 [5.69]	.436 [11.07] / .416 [10.57]	.620 [15.75] / .590 [14.99]	.446 [11.33] / .436 [11.07]	2.411 [61.24] / 2.401 [60.99]	2.084 [52.55] / 2.074 [52.30]	2.650 [67.31] / 2.620 [66.55]	MS18277-1	50	5	M24308/24-41F	1218442-5	1218442-5
.049 [1.24] / .029 [0.74]	.432 [10.97] / .412 [10.46]	2.282 [57.96] / 2.262 [57.45]	.236 [5.99] / .224 [5.69]	.436 [11.07] / .416 [10.57]	.509 [12.93] / .479 [12.17]	.334 [8.48] / .324 [8.23]	2.505 [63.63] / 2.495 [63.37]	2.187 [54.97] / 2.177 [54.71]	2.744 [69.70] / 2.714 [68.94]	MS18276-1	37	4	M24308/24-40F	1218442-4	1218442-4
.049 [1.24] / .029 [0.74]	.432 [10.97] / .412 [10.46]	1.635 [41.53] / 1.615 [41.02]	.236 [5.99] / .224 [5.69]	.436 [11.07] / .416 [10.57]	.509 [12.93] / .479 [12.17]	.334 [8.48] / .324 [8.23]	1.857 [47.17] / 1.847 [46.91]	1.539 [38.51] / 1.529 [38.25]	2.103 [53.42] / 2.073 [52.65]	MS18275-1	25	3	M24308/24-39F	1218442-3	1218442-3
.040 [1.02] / .020 [0.51]	.432 [10.97] / .412 [10.46]	1.093 [27.76] / 1.073 [27.25]	.238 [6.05] / .229 [5.82]	.432 [10.97] / .412 [10.46]	.509 [12.93] / .479 [12.17]	.334 [8.48] / .324 [8.23]	1.317 [33.45] / 1.307 [33.20]	.999 [24.79] / .989 [24.54]	1.556 [39.52] / 1.526 [38.76]	MS18274-1	15	2	M24308/24-38F	1218442-2	1218442-2
.040 [1.02] / .020 [0.51]	.432 [10.97] / .412 [10.46]	.769 [19.53] / .749 [19.02]	.238 [6.05] / .229 [5.82]	.432 [10.97] / .412 [10.46]	.509 [12.93] / .479 [12.17]	.334 [8.48] / .324 [8.23]	.989 [25.12] / .979 [24.87]	.671 [16.46] / .661 [16.21]	1.228 [31.19] / 1.198 [30.43]	MS18273-1	9	1	M24308/24-37F	1218442-1	1218442-1

THIS DRAWING IS A CONTROLLED DOCUMENT.

DWN	21SEP2007
C.C.THOMAS	
CHK CHAD BAKER	12-15-99
APVD CHAD BAKER	12-15-99

DIMENSIONS: INCHES
TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ± -
1 PLC ± -
2 PLC ± -
3 PLC ± -
4 PLC ± -
ANGLES ± 1°

PRODUCT SPEC —
APPLICATION SPEC —
WEIGHT —

MATERIAL SEE CALLOUTS
FINISH SEE CALLOUTS

Tyco Electronics
Tyco Electronics Corporation
Harrisburg, PA 17105-3608

NAME
PLUG ASSY, AMPLIMITE
RIGHT ANGLE, SERIES 109
SIZES 1 THRU 5

SIZE A1
CAGE CODE 00779
DRAWING NO C-1218442
RESTRICTED TO —

SCALE 4:1   SHEET 1 OF 2   REV C

CUSTOMER DRAWING

AMP 4805 REV 31MAR2000

LOC	DIST	REVISIONS			
DF	DO				
		P	LTR	DESCRIPTION	DATE	DWN	APVD
		—		SEE SHEET 1	—	—	—

φ.128 [3.25] TYP
.122 [3.10]

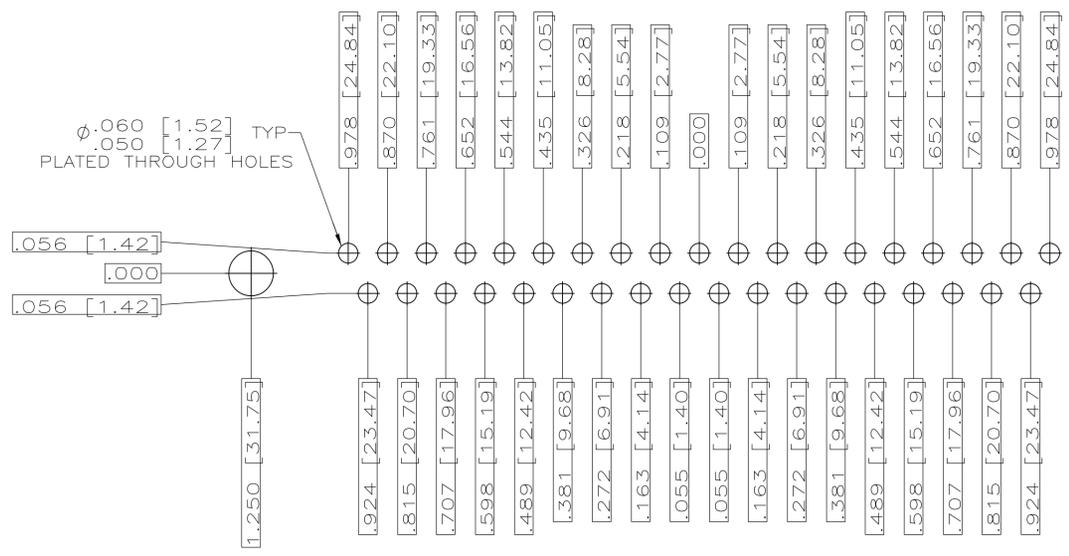φ.060 [1.52] TYP
.050 [1.27]
PLATED THROUGH HOLES

.056 [1.42]
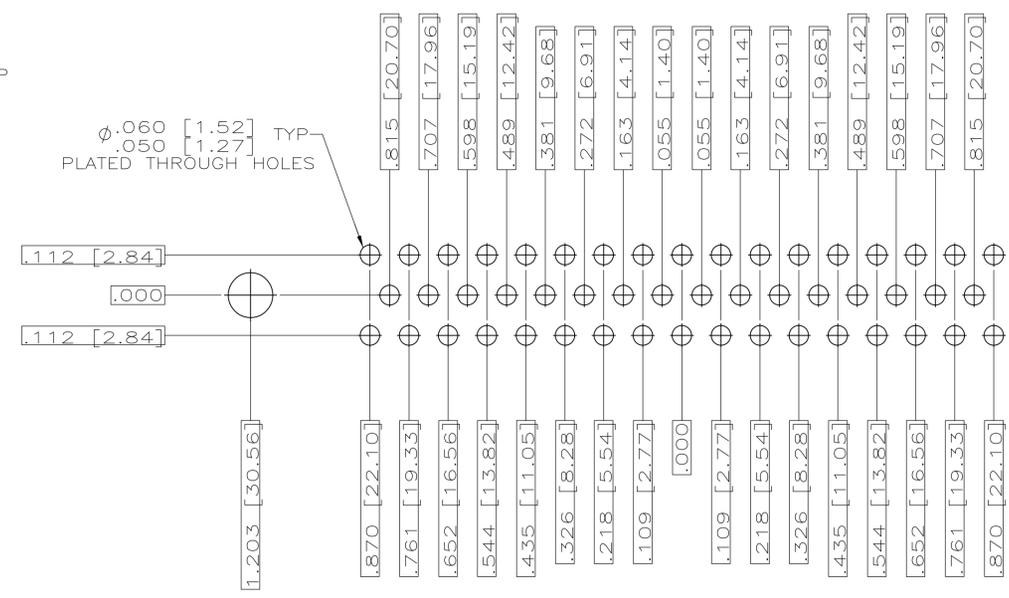.000
.056 [1.42]
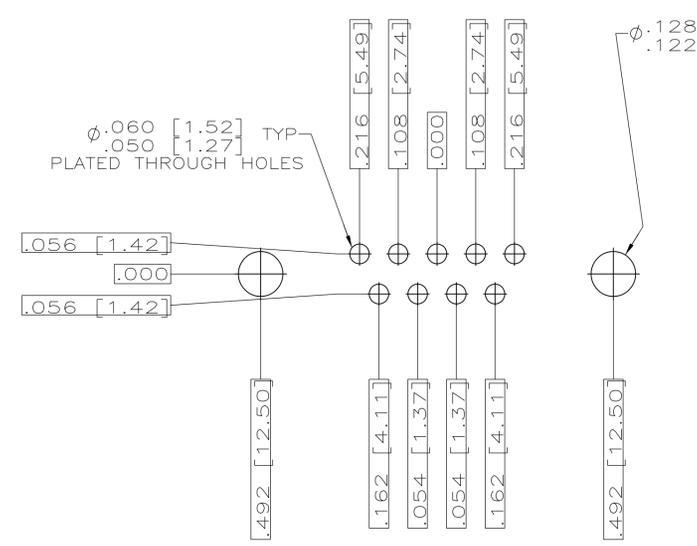
RECOMMENDED P.C. BOARD LAYOUT
SHELL SIZE 1 (9 POSITION)

RECOMMENDED P.C. BOARD LAYOUT
SHELL SIZE 2 (15 POSITION)
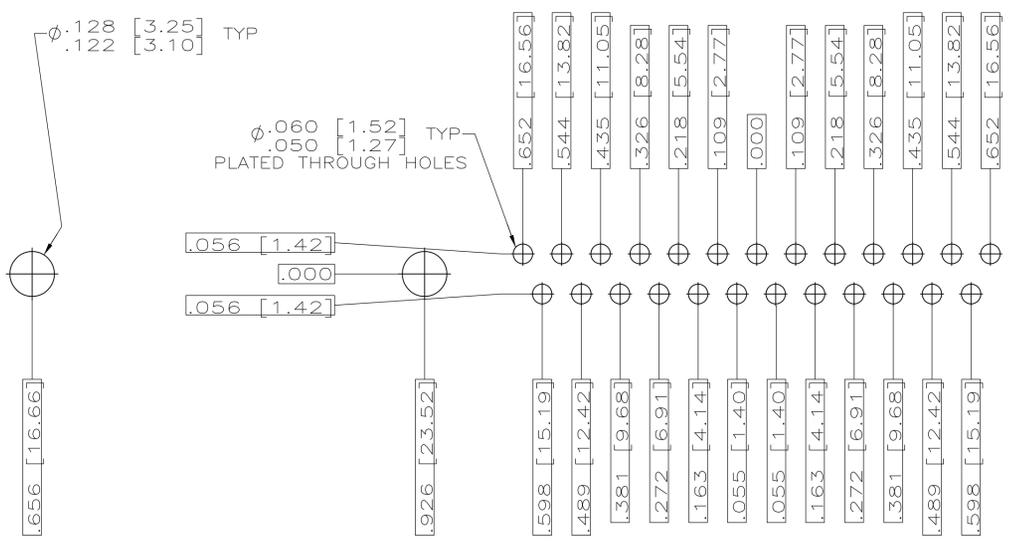
RECOMMENDED P.C. BOARD LAYOUT
SHELL SIZE 3 (25 POSITION)

RECOMMENDED P.C. BOARD LAYOUT
SHELL SIZE 4 (37 POSITION)

RECOMMENDED P.C. BOARD LAYOUT
SHELL SIZE 5 (50 POSITION)

.112 [2.84]
.000
.112 [2.84]

DIMENSIONS:	TOLERANCES UNLESS OTHERWISE SPECIFIED:
INCHES	0 PLC ± —
	1 PLC ± —
	2 PLC ± —
	3 PLC ± —
	4 PLC ± —
	ANGLES ± ± 4°
MATERIAL SEE CALLOUTS	FINISH SEE CALLOUTS

DWN C.C.THOMAS	12-6-99
CHK CHAD BAKER	12-15-99
APVD CHAD BAKER	12-15-99
PRODUCT SPEC —
APPLICATION SPEC —
WEIGHT —

Tyco Electronics
Tyco Electronics Corporation
Harrisburg, PA 17105-3608

NAME
PLUG ASSY, AMPLIMITE
RIGHT ANGLE, SERIES 109, SIZE
1 THRU 5

| SIZE A1 | CAGE CODE 00779 | DRAWING NO C-1218442 | REV C |
| SCALE 4:1 | SHEET 2 OF 2 |

CUSTOMER DRAWING

Mouser Electronics

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