
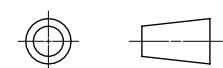


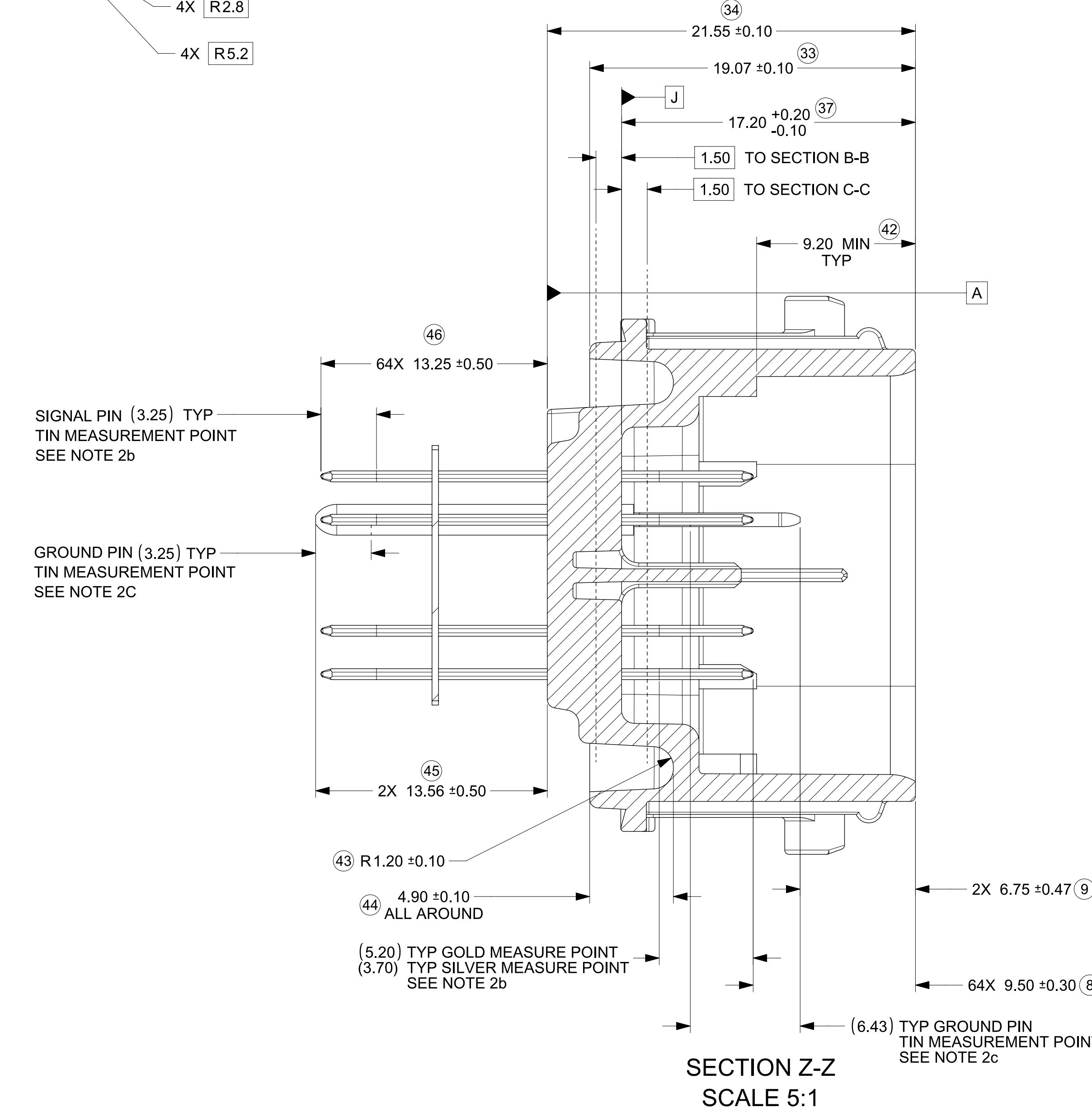
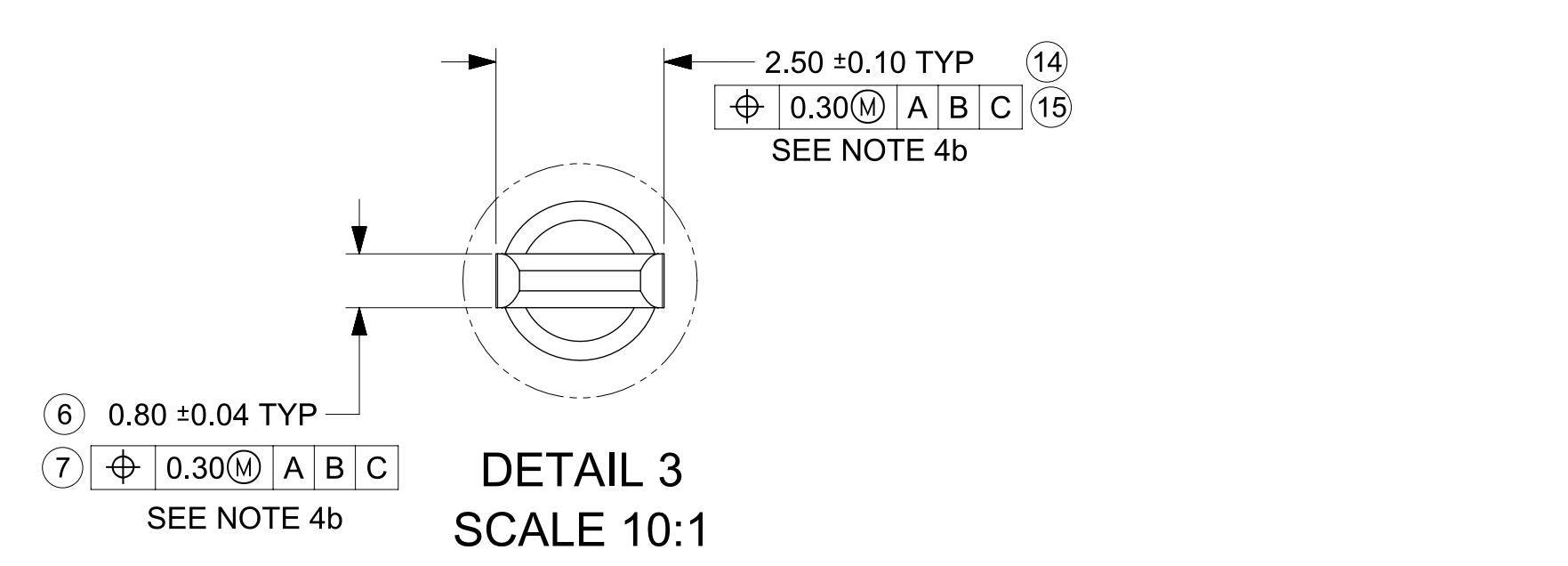
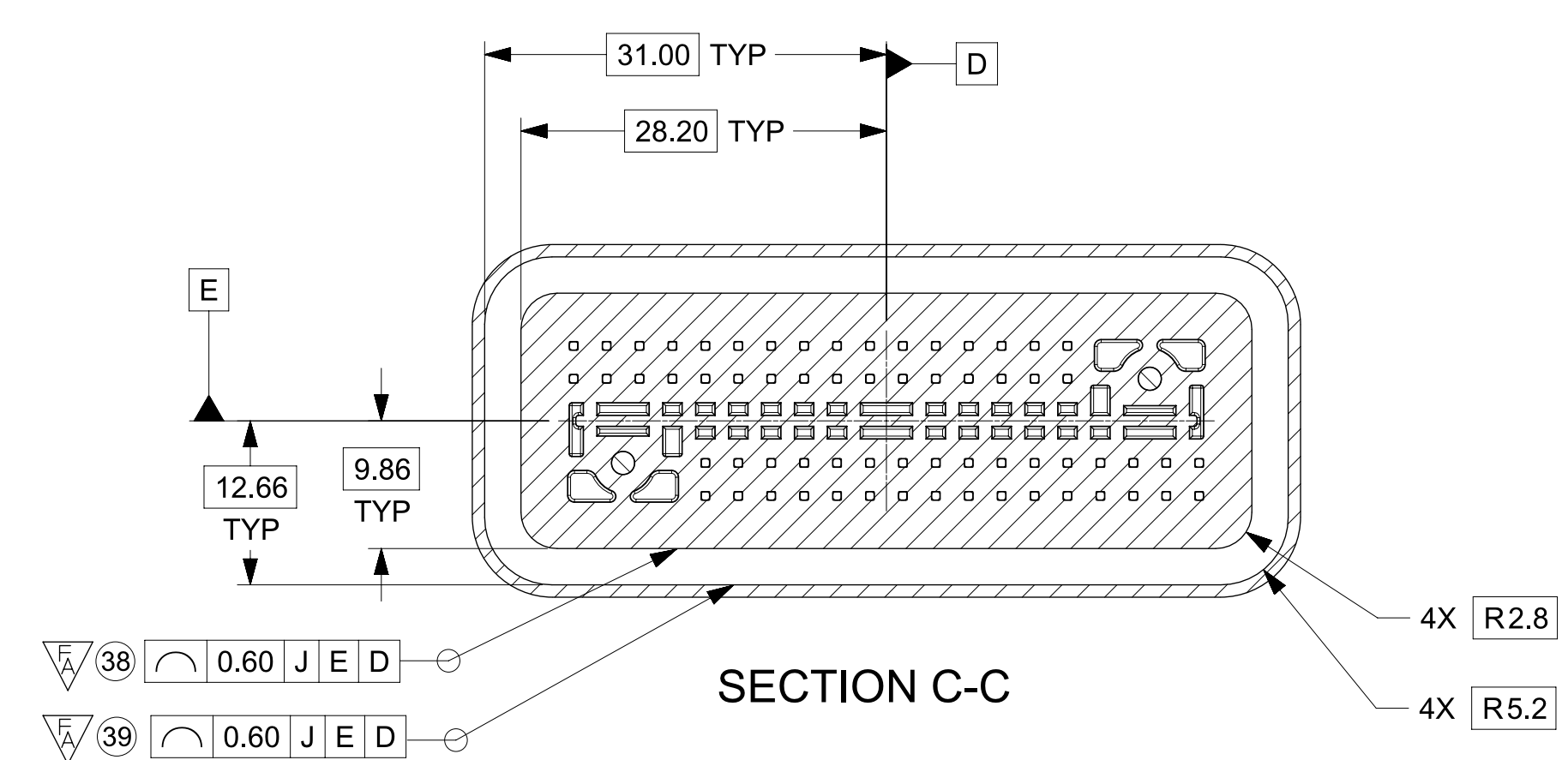
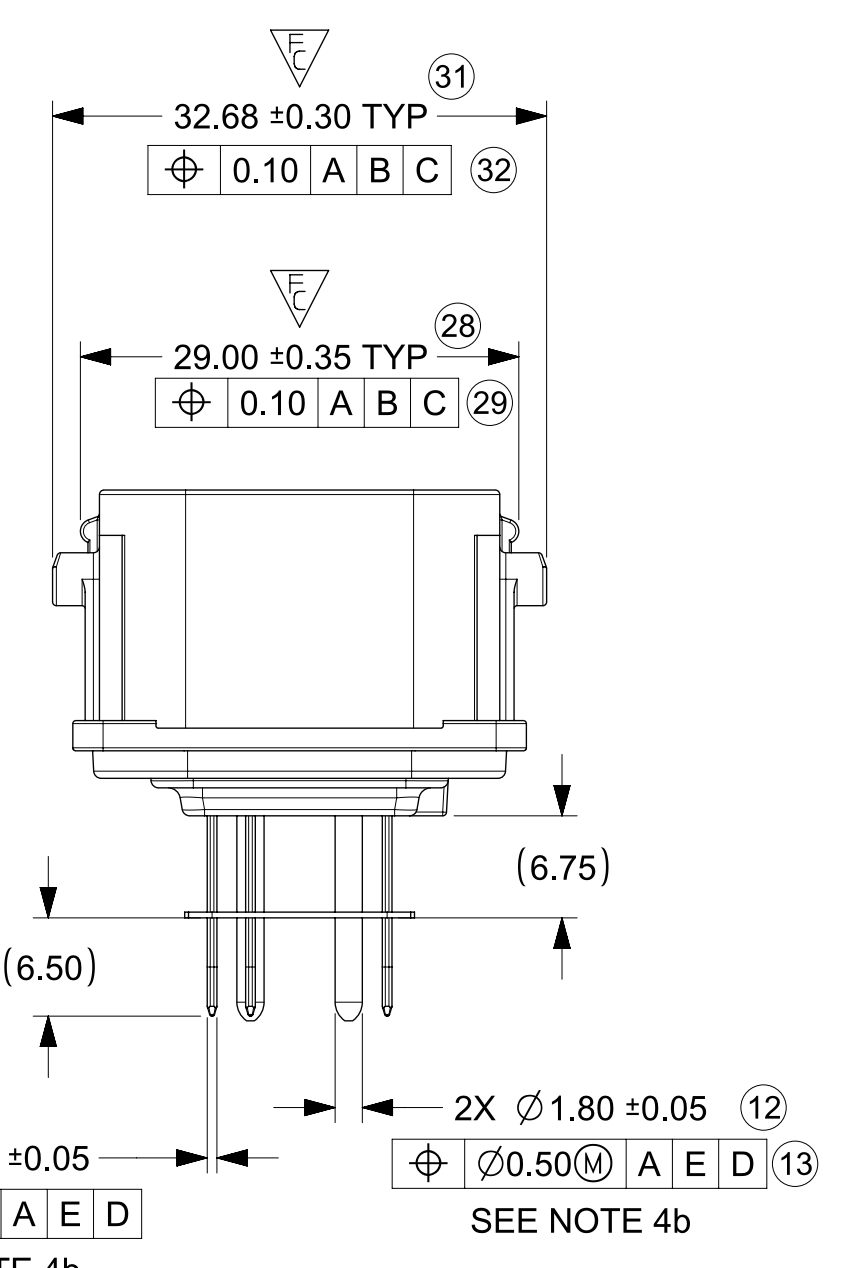
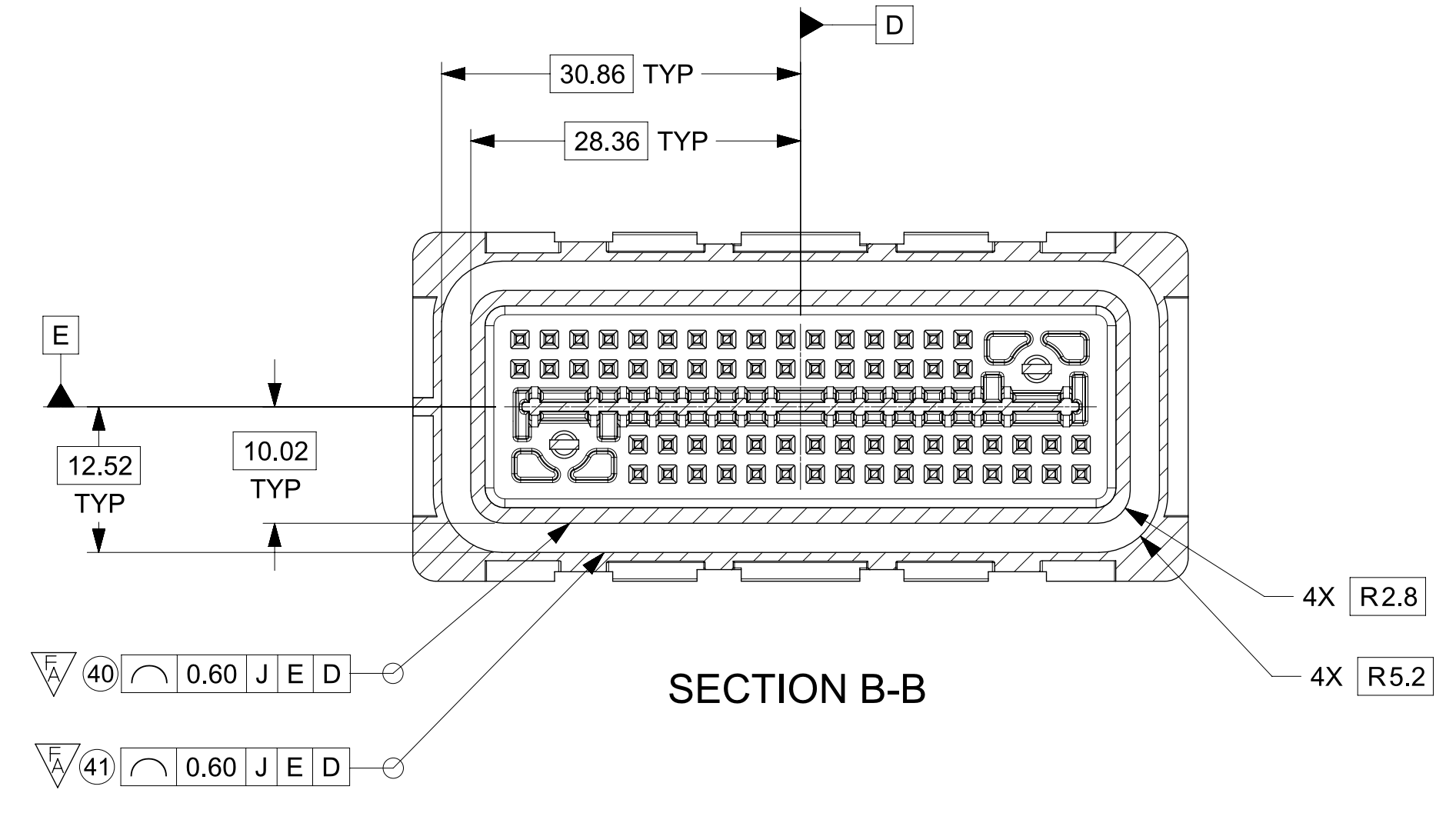
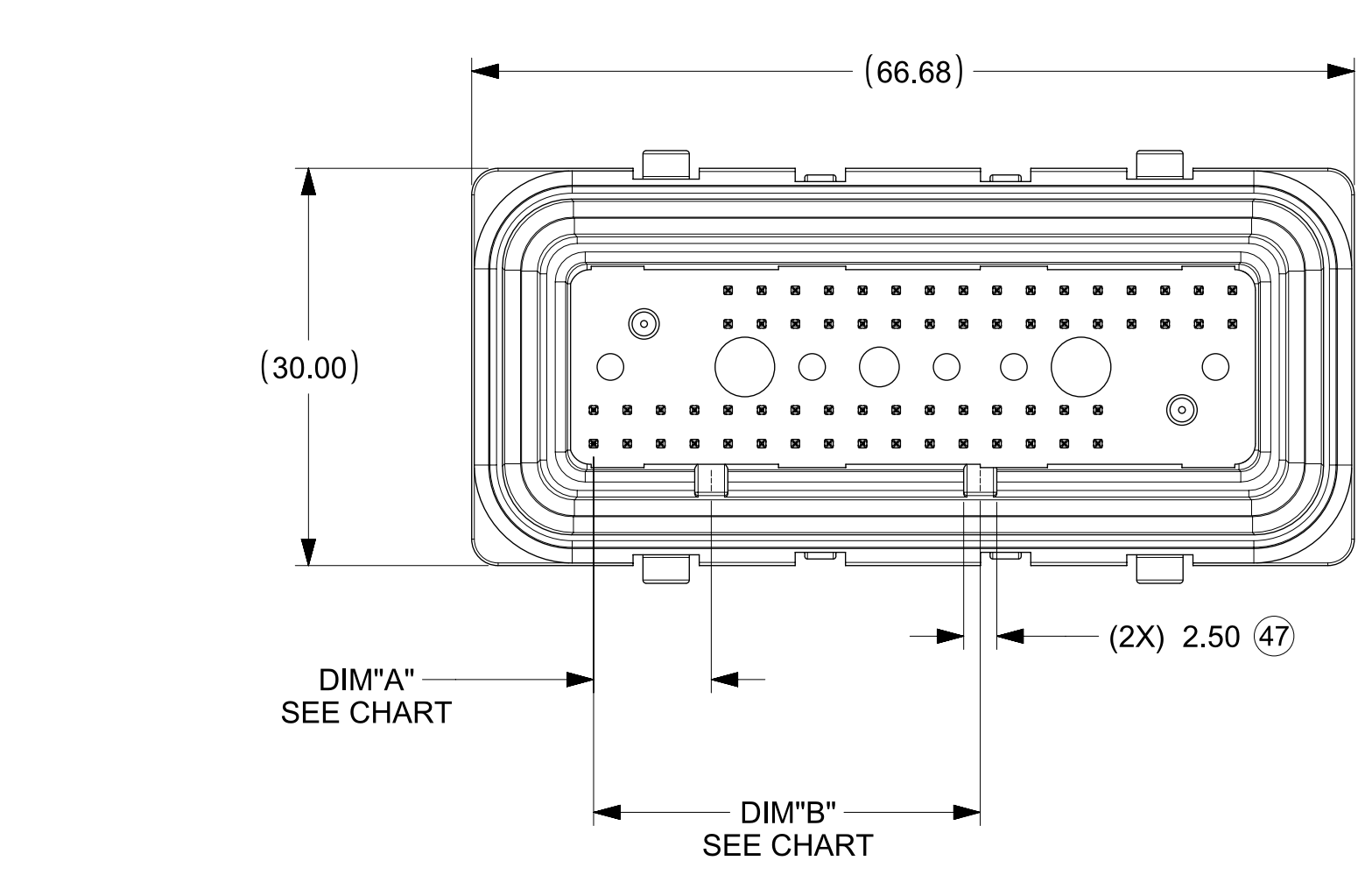
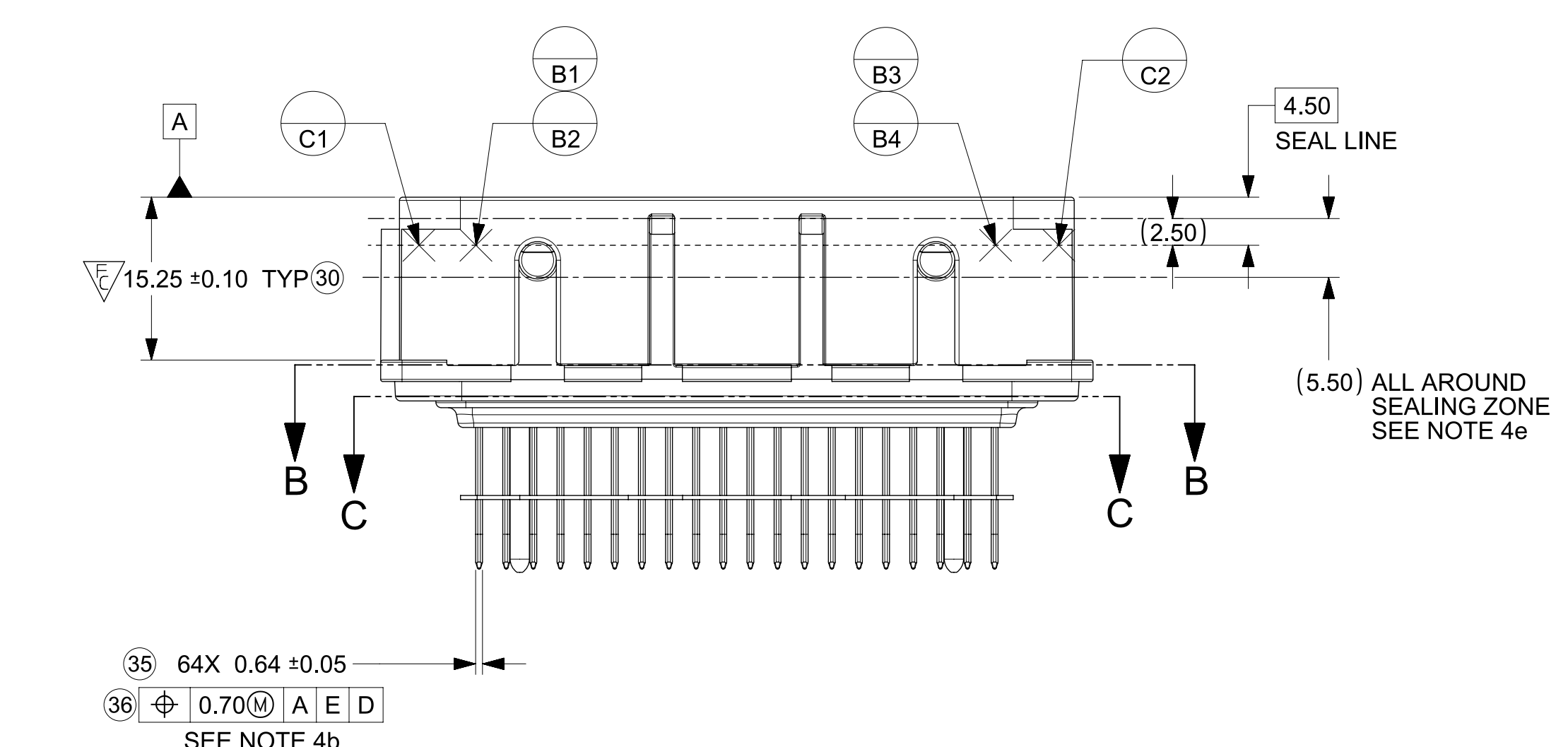
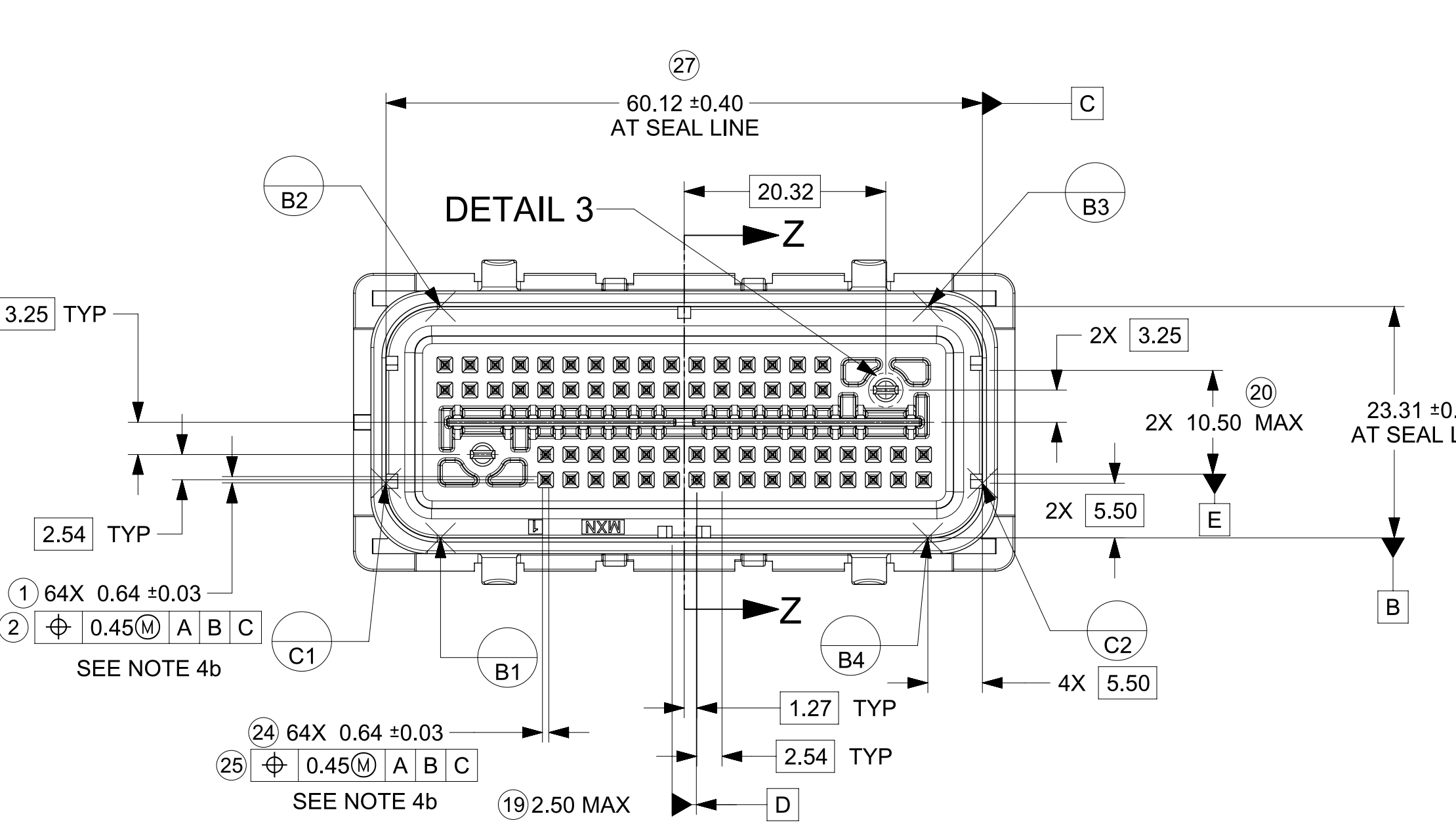
NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. GENERAL:
  - a. APPLICATION SPECIFICATION: AS-31386-200
  - b. PRODUCT SPECIFICATION: PS-31387-200
  - c. PACKAGING SPECIFICATION: PK-31301-916
  - d. PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS AND PACKAGING SPECIFICATION: ES-40000-5016
  - e. DATA MUST BE SUBMITTED UNDER THE MOLEX PART NUMBER TO IMDS (COMPANY ID#13255)
  - f. DIMENSIONS AND TOLERANCES ARE VALID FOR AS SHIPPED SHROUD ASSEMBLY
  - g. REFERENCE GM INTERFACE CONTROL DRAWINGS (ICD)
    1. 12582682 (Au)
    2. 12642695 (Ag)
2. DESIGN - MATERIALS
  - a. PLASTIC: PBT 30% GF - SEE CHART FOR COLOR
  - b. SIGNAL PIN PLATING:
    - UNDERPLATE: NICKEL 1.27-2.54  $\mu$ m
    - SELECT GOLD OPTION: 0.76  $\mu$ m MIN.
    - SELECT SILVER OPTION: 1.90-3.30  $\mu$ m MIN
    - SOLDER TAIL SELECT TIN: 5.08-10.16  $\mu$ m BRIGHT FINISH
  - c. GROUND PIN PLATING:
    - UNDERPLATE: NICKEL 1.27-2.54  $\mu$ m
    - OVERPLATE: SELECT TIN 2.54-4.06  $\mu$ m, MATTE FINISH
3. DESIGN - GEOMETRY:
  - a. THIS IS A 100% CAD GENERATED PART. THE CAD MATHEMATICAL DATA IS THE MASTER FOR ALL NON-DIMENSIONAL FEATURES. DRAWING DIMENSIONS SHALL BE MET WHEN DIFFERENCES EXIST BETWEEN THE DRAWING AND THE CAD MODEL. UNDERLINED DIMENSIONS OR DIMENSIONS INDICATED AS "EDITED" MAY BE DIFFERENT FROM THE 3D MODEL GEOMETRY. FOR DIMENSIONAL OR ANY INFORMATION NOT SHOWN ON THIS DRAWING, ANALYZE THE CAD MODEL.
  - b. PRODUCT DESIGN MODEL NUMBER(S): SEE BOM TABLE
  - c. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994
  - d. GENERAL TOLERANCES - SEE TABLE
4. DESIGN - MANUFACTURING:
  - a. HUMAN READABLE LASER MARKING
    1. INFORMATION TO BE PRINTED:
      - DDDY - 4 DIGIT JULIAN DATE CODE
      - S\_HH - STITHCER NUMBER\_HOUR NUMBER (24 HOUR CLOCK)
      - MMMM - LAST FOUR DIGITS OF MOLEX MATERIAL NUMBER
    2. SIZE: HUMAN LEGIBLE
  - b. PIN MATE SIDE AND PCB SIDE TRUE POSITION TO BE VERIFIED ONLINE WITH A GO/NO-GO FUNCTIONAL GAGE.
  - c. ANTI-TARNISH FOR Ag PLATING ONLY: SYTHETIC HYDROCARBON CONTACT SURFACE FINISH OR EQUIVALENT APPLIED WITHOUT VOID TO CONTACT AREA (MIN. 3.7mm FROM PIN TIP).
  - d. VISUAL DEFECTS SHALL MEET COSMETIC STANDARD PS-45499-002 (CLASS B).
  - e. THERE SHALL BE NO PERMISSIBLE DEFECTS THAT COULD POTENTIALLY PROHIBIT THE FUNCTIONALITY WITHIN THE SEALING SURFACE/ZONE SUCH AS PARTING LINES, MISMATCHES, SINK, TEXTURE VARIATIONS, SCRATCHES/GOUGES, SHORT FILL, PROTRUSIONS, PITS, DENTS/NICKS, BLISTERS OR EJECTOR MARKS.

A12	Added Updated PN# for Female Connectors
A11	CORRECTED DIMENSION 37 EC# 642576
A10	UPDATED PCN 505530 FOR MINOR DRAFT AND RADII
A9	NX REMASTERING
A8	UPDATE STATUS TO SALEABLE
A7	UPDATED NOTE 1c SAP# 10595870
A6	ADDED NOTE 4d, e & SEALING ZONE ON PG 2 SAP# 10586362
A5	MODIFIED HIGH RETENTION CAVITY FOR 2.8 GROUND PIN SAP# 10584227
A4	ADDED BALLOONS 1,2,6-15,19,20,24-47 REMOVED BALLOONS 3-5,17,18,21-23 EDITED ALL NOTES, STATUS & MATING HARNESS PART NUMBER SAP# 10580347
REV	DESCRIPTION

INSPECTION BALLOON NUMBER LOG	
PER DRAWING REVISION: A6	
LAST BALLOON NUMBER: 47	
ADDED BALLOON NUMBER: 1 2 6 7 8 9 10 11 12 13 14 15 19 20 24 25 26 27 28 29 30	
31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	
DELETED INSPECTION BALLOON NUMBER: 3 4 5 16 17 18 21 22 23	

FUNCTIONAL SYMBOLS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: Added Updated PN# for Female Connectors									
$\frac{F}{A} = 0$	DIMENSION UNITS: <b>MM</b>	SCALE: <b>2:1</b>	 <p>66 CKT SHROUD ASSY GENERAL MAKRET</p> <p>PRODUCT CUSTOMER DRAWING</p> <table border="1"> <tr> <td>DOCUMENT NUMBER</td> <td>DOC TYPE</td> <td>DOC PART</td> <td>REVISION</td> </tr> <tr> <td><b>SD-31387-066</b></td> <td>PSD</td> <td>000</td> <td>A12</td> </tr> </table>			DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION	<b>SD-31387-066</b>	PSD	000	A12
DOCUMENT NUMBER	DOC TYPE	DOC PART				REVISION							
<b>SD-31387-066</b>	PSD	000				A12							
$\frac{F}{C} = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)												
$\frac{F}{D} = 0$	ANGULAR TOL $\pm$	3'											
DIVISIONAL SYMBOLS	4 PLACES	$\pm$											
	3 PLACES	$\pm$											
	2 PLACES	$\pm$ 0.130											
	1 PLACE	$\pm$ 0.25											
	0 PLACES	$\pm$											
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER								
			<b>D-SIZE</b>	<b>31387</b>	<b>SEE CHART</b>								
				CUSTOMER	SHEET NUMBER								
				<b>GENERAL MARKET</b>	<b>1 OF 3</b>								



FUNCTIONAL SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: Added Updated PN# for Female Connectors	
	FA = 4	MM	SCALE 2:1	
DIVISIONAL SYMBOLS	FE = 3	GENERAL TOLERANCES (UNLESS SPECIFIED)		
	FP = 0	ANGULAR TOL ± 3°	4 PLACES ±	3 PLACES ±
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	2 PLACES ± 0.130	STATUS: Production	DRWN: Jayasuriyaa R	2025-11-19
	1 PLACE ± 0.25	CHK'D: Jayasuriyaa R	APPR: M Prashanth Nagaraj	2025-11-19
	0 PLACES ±	THIRD ANGLE PROJECTION	SERIES	MATERIAL NUMBER
		D-D SIZE	31387	SEE CHART
CUSTOMER		GENERAL MARKET		SHEET NUMBER 2 OF 3

**molex**

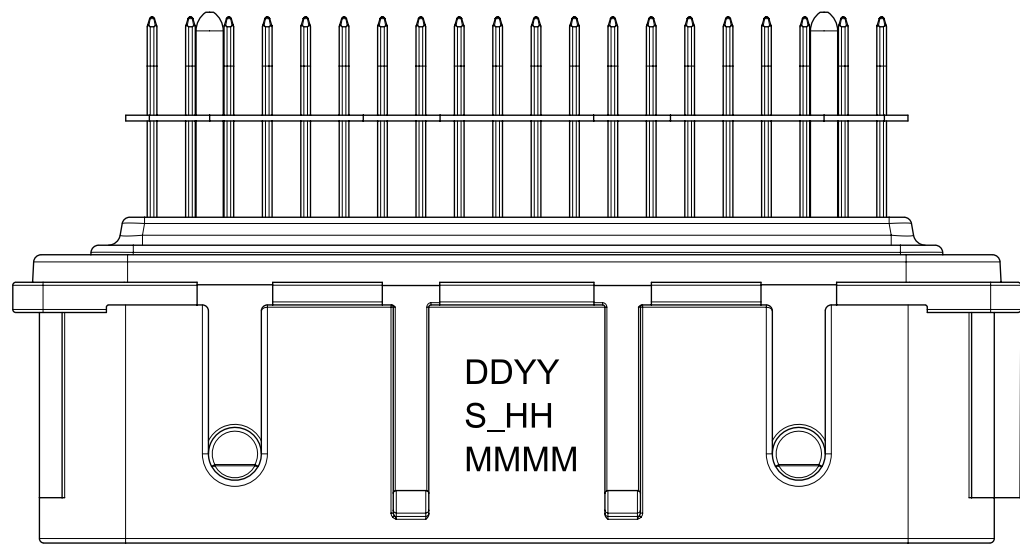
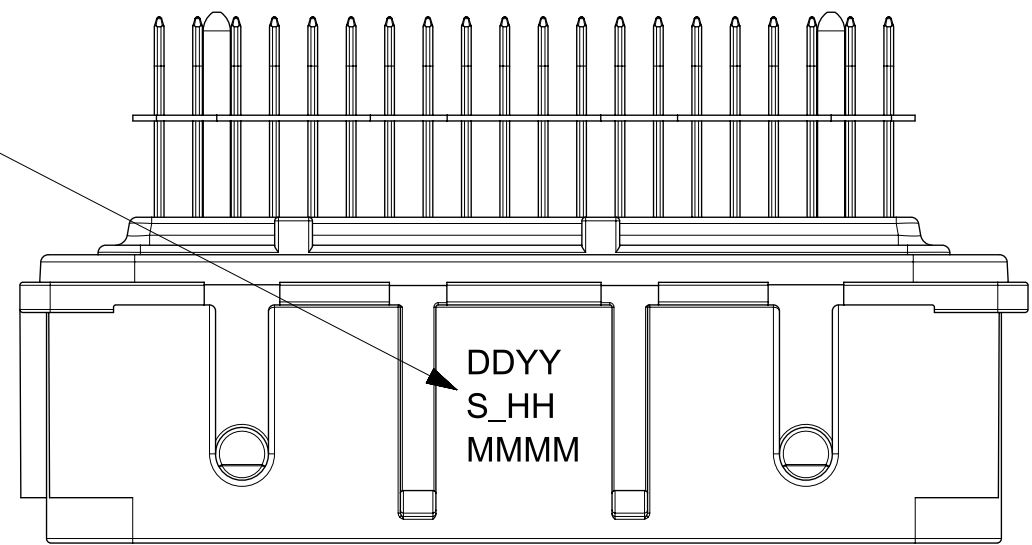
66 CKT SHROUD ASSY  
GENERAL MAKRET

PRODUCT CUSTOMER DRAWING

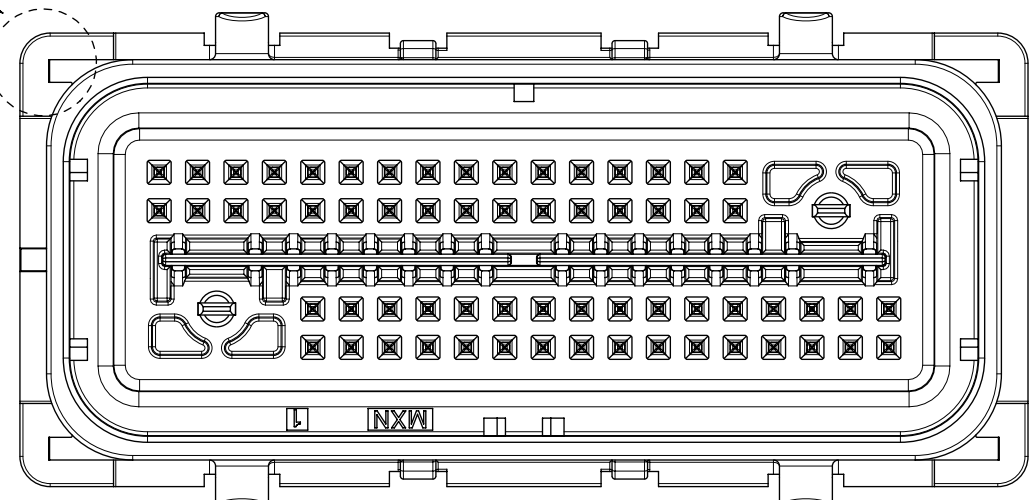
DOCUMENT NUMBER: SD-31387-066  
DOC TYPE: PSD  
DOC PART: 000  
REVISION: A12

SHROUD ASSEMBLY NUMBER	MATE SIDE PIN FINISH	COLOR	HARNESS SIDE KEY CODE	PCB SIDE KEY LOCATION		MATING HARNESS PART NUMBER (OPT 0, OPT 9)	STATUS
				DIM. "A" ±0.30	DIM. "B" ±0.30		
31387-8001	GOLD	BLACK	A	8.89	29.21	348220013 / 2167410001 348220023 / 2167410002	SALEABLE
31387-8003	GOLD	BLUE	C	8.89	34.29	348220033 / 2167410003 348220043 / 2167410004	SALEABLE
31387-8004	SILVER	BLACK	A	8.89	29.21	348220013 / 2167410001 348220023 / 2167410002	SALEABLE
31387-8006	SILVER	BLUE	C	8.89	34.29	348220033 / 2167410003 348220043 / 2167410004	SALEABLE

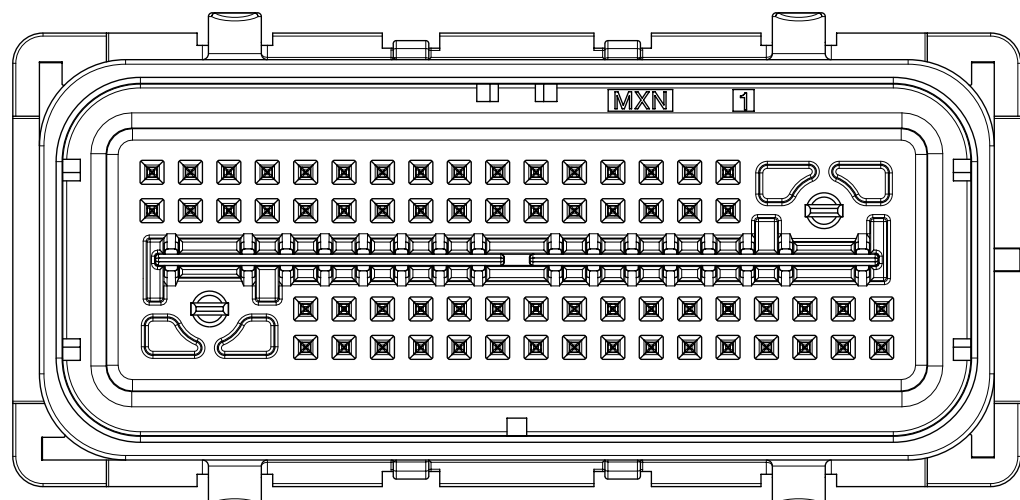
SHROUD ASSEMBLY TRACEABILITY INFORMATION FOR MOLEX INTERNAL USE ONLY (SEE NOTE 4a)



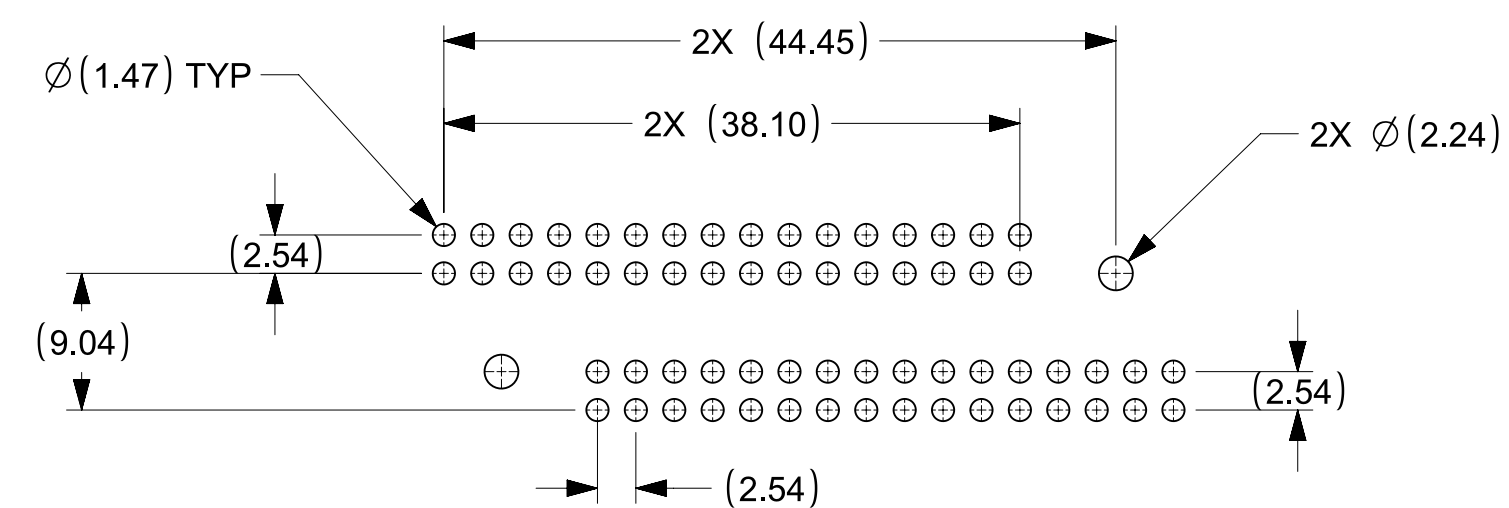
MATE SIDE POLARIZATION KEY AT CORNERS



KEY OPTION "A"

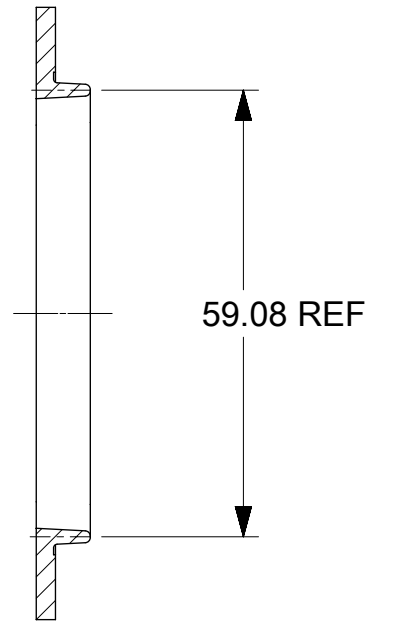
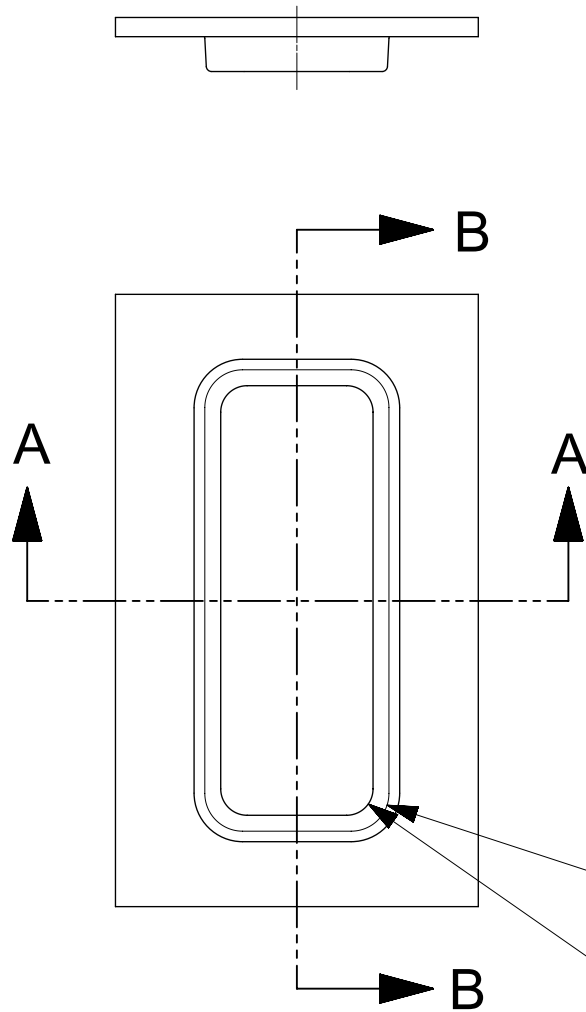
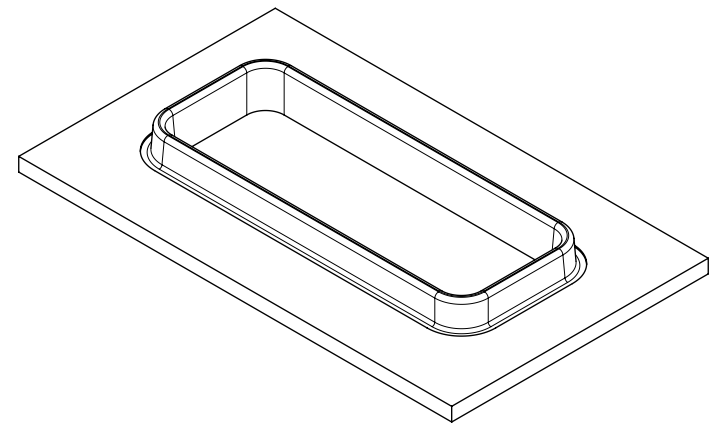


KEY OPTION "C"

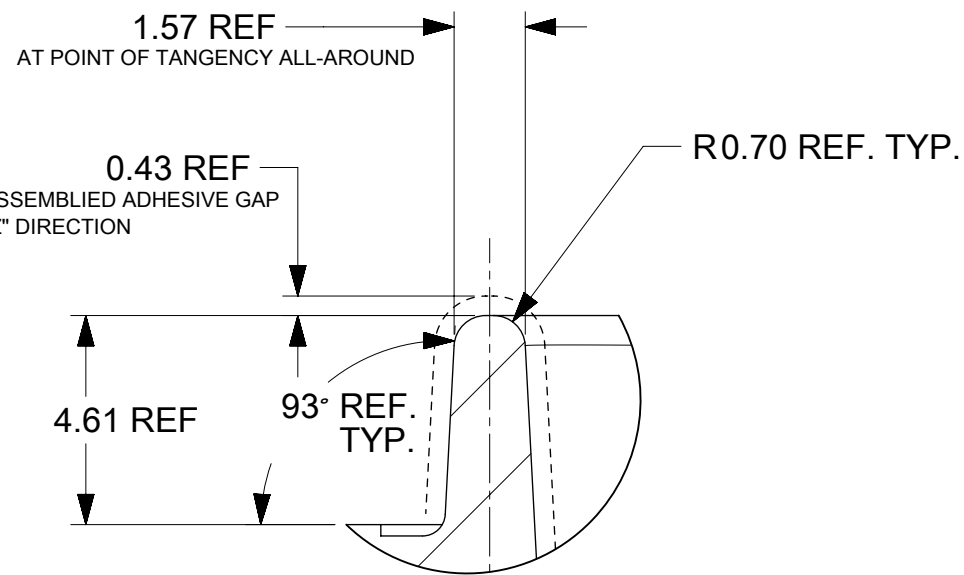


PCB LAYOUT FOR REFERENCE ONLY

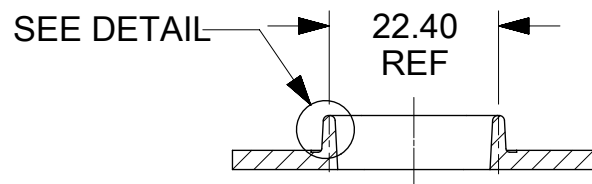
<b>FUNCTIONAL SYMBOLS</b> $\nabla_A = 0$ $\nabla_C = 0$ $\nabla_P = 0$ <b>DIVISIONAL SYMBOLS</b>	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		  <b>66 CKT SHROUD ASSY GENERAL MAKRET</b>  <b>PRODUCT CUSTOMER DRAWING</b>					
	DIMENSION UNITS	SCALE				CURRENT REV DESC: Added Updated PN# for Female Connectors		
	MM	2:1				STATUS: Production		
	GENERAL TOLERANCES (UNLESS SPECIFIED)					DRWN: Jayasuriyaa R 2025-11-19		
	ANGULAR TOL ± 3°					CHK'D: Jayasuriyaa R 2025-11-19		
4 PLACES ±		APPR: M Prashanth Nagaraj 2025-11-19						
3 PLACES ±		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS						
2 PLACES ± 0.130		THIRD ANGLE PROJECTION						
1 PLACE ± 0.25		DRAWING						
0 PLACES ±		D-SIZE						
		SERIES						
		MATERIAL NUMBER						
		CUSTOMER						
		SHEET NUMBER						
		SEE CHART						
		GENERAL MARKET						
		3 OF 3						



SECTION B-B



SCALE 6:1



SECTION A-A

R5.00 REF. TYP

R3.50 REF. TYP

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

QUALITY SYMBOLS	EC NO: 121890 DRWN: BSKANTHARAJU CHKD: APPR: DKRAWCZYK	2017/03/28 2017/10/12	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION UNITS	SCALE		
			ANGULAR TOL ± °		MM	1:1		
▽ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	B1	4 PLACES ±	DRWN BY	DATE	LARGE FOOTPRINT ADHESIVE TONGUE GEOMETRY		
▽ = 0			3 PLACES ±	FJAKLIC	11/21/2008			
▽ = 0			2 PLACES ±	CHK'D BY	DATE			
▽ = 0			1 PLACE ±	GPRATT	11/21/2008			
▽ = 0			0 PLACES ±	APPR BY	DATE			
▽ = 0			DKRAWCZYK	2013/02/19	PRODUCT CUSTOMER DRAWING			
□ = 0			DRAWING SIZE	THIRD ANGLE PROJECTION	SERIES	MATERIAL NUMBER	CUSTOMER	
■ = 0			B		31387		GENERAL MARKET	
▽ = 0					DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
					SD-31387-173	PSD	000	1 OF 1

RELEASE STATUS	RELEASE DATE
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