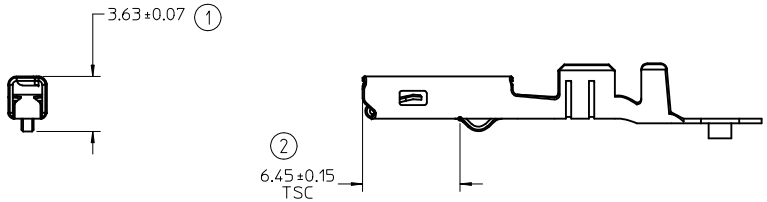
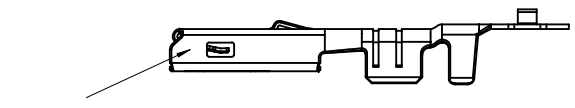
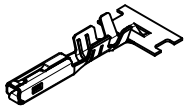
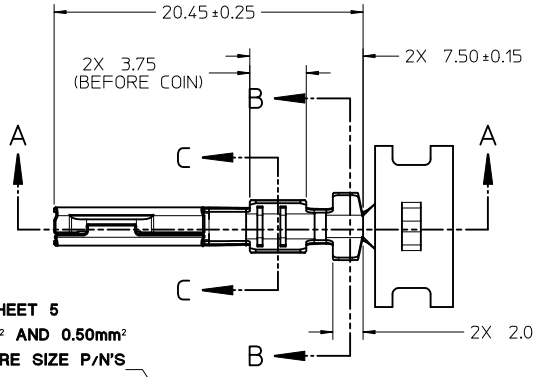


DIMENSIONS FOR LARGE POLARIZATION RIB TERMINAL ONLY

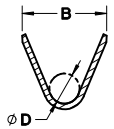




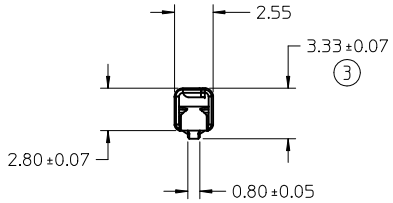
SCALE 2:1

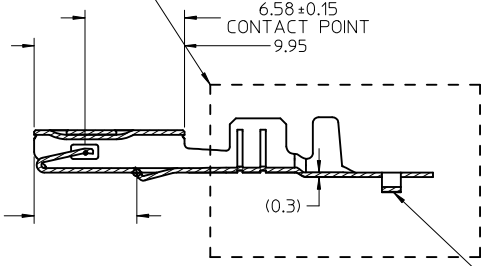


SEE SHEET 5
0.35mm² AND 0.50mm²
ISO WIRE SIZE P/N'S
33012-2004/3004
33001-4005/5005



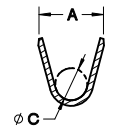
SECTION B-B
SCALE 5:1



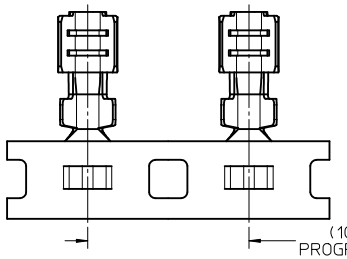


SECTION A-A

CARRIER BUMP DIRECTION
POINTS DOWN FOR TIN PLATED TERMINALS
POINTS UP FOR PRECIOUS PLATED TERMINALS



SECTION C-C
SCALE 5:1



NOTES: (UNLESS OTHERWISE SPECIFIED)

1. MATING TERMINAL SHOWN ON SD-33000-001
2. MATERIAL: ASTM B422, UNS C19025, HR04
   THICKNESS: 0.30 mm ±0.01
   TEMPER: FULL HARD (REF)
   TENSILE: 496 MIN MPA
3. TIN PLATED TERMINAL FINISH:
   OVERALL UNDERPLATE ELECTRODEPOSITED NICKEL
   OVERALL ELECTRODEPOSITED REFLOW TIN
4. GOLD PLATED TERMINAL FINISH
   OVERALL UNDERPLATE ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL
   CONTACT AREA - ELECTRODEPOSITED GOLD
   GRIP AREA - ELECTRODEPOSITED 100% TIN MATTE FINISH
5. SILVER PLATED TERMINAL FINISH
   OVERALL UNDERPLATE ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL
   CONTACT AREA - ELECTRODEPOSITED PURE SILVER (0.5% MAX IMPURITIES) SEMI-BRIGHT FINISH
   - SILVER ANTI-TARNISH : EVABRITE
   GRIP AREA - ELECTRODEPOSITED 100% TIN MATTE FINISH
6. MEETS PERFORMANCE SPECIFICATION FOR CABLE TO TERMINAL ELECTRICAL CRIMPS PER SAE/USCAR-21 (8/2001)
7. MEETS PERFORMANCE STANDARD FOR AUTOMOTIVE ELECTRICAL CONNECTOR SYSTEMS FOR SAE/USCAR-2, REV. 4 (TEMP CLASS 3) (4/2001)
8. MEETS ELECTRICAL CONNECTION SYSTEM DESIGN SPECIFICATION (SDS) REV.11 (5/2002)
9. MEETS FIELD CORRELATED LIFE TEST (FCLT) PER SAE/USCAR-20 (11/2001)
10. MEETS WIRING COMPONENT DESIGN GUIDLINES SAE/USCAR-12 REV 2 (12/2001)
11. TSC ON A DIMENSION TO BE INTERPRETED AS DISTANCE TO A THEORETICAL SHARP CORNER AS IF THE RADIUS WERE NOT PRESENT
12. REFERENCE 97BG-14474-AAB FOR LARGE POLARIZATION RIB CAVITY SPECIFICATION
13. INSERTION FORCE (TIN) AVG. FROM PV TESTING =
    3.8N LARGE POLARIZATION RIB
    3.5N SMALL POLARIZATION RIB
    (REFERENCE)
14. ALL DIMENSIONS EXCEPT (1), (2), (3) & (4) ARE COMMON TO BOTH SMALL AND LARGE POLARIZATION RIB TERMINALS
15. REFERENCE PK-31300-516 FOR REEL DIRECTION
16. REFERENCE AS-33012-002 FOR CRIMP INFORMATION

ENTER DESCRIPTION
EC NO: UAU2011-1208 2011/06/28
DRWN:ADHIR
CH'KD:
APPR:BMOSER 2011/07/06
DESCRIPTION
B3
REV

QUALITY SYMBOLS
FV =0
FE =0
FP =0

GENERAL TOLERANCES (UNLESS SPECIFIED)

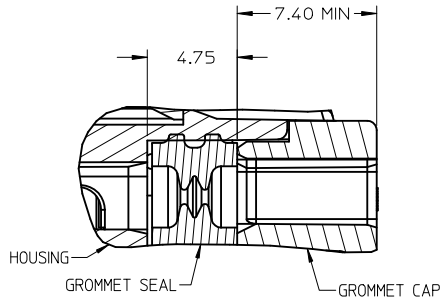
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± 0.005	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.3	± ---
ANGULAR ± 3 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

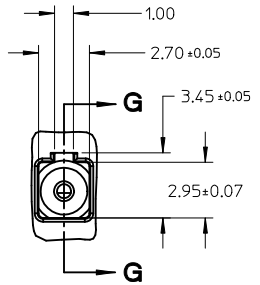
DIMENSION STYLE	MM ONLY
SCALE	4:1
DESIGN UNITS	METRIC
	THIRD ANGLE PROJECTION
DRAWN BY / DATE	L. PULLIAM 2005/06/21
CHECKED BY / DATE	A. DHIR 2005/06/21
APPROVED BY / DATE	B. MOSER 2005/06/22
MATERIAL NO.	SEE TABLE
TITLE	MX150 RECEPTACLE TERMINAL
	MOLEX INCORPORATED
DOCUMENT NO.	SD-33012-002
SHEET NO.	1 OF 5
SIZE	C

TABLE

SUPPLIER PART NUMBER		PLATING	GRIP CODE	WIRE APPLICATION		A ±0.30	B ±0.30	C ±0.30	D ±0.30	COMMENTS
SMALL POLARIZATION RIB										
RIGHT PAYOFF DIRECTION B	LEFT PAYOFF DIRECTION D			SAE (AWG)	METRIC (mm²)					
33012-2001	33012-3001	TIN	14	14/16	2.0-1.5	3.9	4.4	1.7	1.6	
33012-2002	33012-3002	TIN	18	18/20	1.0-0.75	3.3	3.1	1.3	1.4	
33012-2003	33012-3003	TIN	22	22	0.35-0.50	2.5	2.6	0.9	1.0	
33012-2004	33012-3004	TIN	M3	N/A	0.35-0.50	2.5	2.7	0.9	1.54±0.1	PREFERRED TERMINAL FOR USE IN SEALED APPLICATION WITH 0.35& 0.50 WIRES (OD 1.2-1.7mm)
33001-2003	33001-3003	GOLD	14	14/16	2.0-1.5	3.9	4.4	1.7	1.6	
33001-2004	33001-3004	GOLD	18	18/20	1.0-0.75	3.3	3.1	1.3	1.4	
33001-2005	33001-3005	GOLD	22	22	0.35-0.50	2.5	2.6	0.9	1.0	
33001-4001	33001-5001	SILVER	14	14/16	2.0-1.5	3.9	4.4	1.7	1.6	
33001-4002	33001-5002	SILVER	18	18/20	1.0-0.75	3.3	3.1	1.3	1.4	
33001-4003	33001-5003	SILVER	22	22	0.35-0.50	2.5	2.6	0.9	1.0	
33001-4005	33001-5005	SILVER	M3	N/A	0.35-0.50	2.5	2.7	0.9	1.54±0.1	PREFERRED TERMINAL FOR USE IN SEALED APPLICATION WITH 0.35& 0.50 WIRES (OD 1.2-1.7mm) USE IN CLASS 3 (125° C) APPLICATIONS ONLY
LARGE POLARIZATION RIB - NOT TO BE USED IN MX150 SEALED CONNECTORS										
33012-2021	33012-3021	TIN	14	14/16	2.0-1.5	3.9	4.4	1.7	1.6	
33012-2022	33012-3022	TIN	18	18/20	1.0-0.75	3.3	3.1	1.3	1.4	
33012-2023	33012-3023	TIN	22	22	0.35-0.50	2.5	2.6	0.9	1.0	
33001-2021	33001-3021	GOLD	14	14/16	2.0-1.5	3.9	4.4	1.7	1.6	
33001-2022	33001-3022	GOLD	18	18/20	1.0-0.75	3.3	3.1	1.3	1.4	
33001-2023	33001-3023	GOLD	22	22	0.35-0.50	2.5	2.6	0.9	1.0	
33001-4021	33001-5021	SILVER	14	14/16	2.0-1.5	3.9	4.4	1.7	1.6	
33001-4022	33001-5022	SILVER	18	18/20	1.0-0.75	3.3	3.1	1.3	1.4	
33001-4023	33001-5023	SILVER	22	22	0.35-0.50	2.5	2.6	0.9	1.0	



SECTION G-G



GROMMET CAP OPENING

GROMMET SEAL / CAP CONFIGURATION TO MODIFY LARGE POLARIZATION RIB CAVITY TO ACCEPT SMALL POLARIZATION RIB APPLICATIONS

ENTER DESCRIPTION
EC NO: UAU2011-1208 2011/06/28
DRWN:ADHIR
CH'KD:
APPR:BMOSER 2011/07/06
DESCRIPTION
B3
REV

QUALITY SYMBOLS
F =0
F =0
F =0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± 0.005	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.3	± ---
ANGULAR ± 3 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: L. PULLIAM DATE: 2005/06/21
CHECKED BY: A. DHIR DATE: 2005/06/21
APPROVED BY: B. MOSER DATE: 2005/06/22

TITLE: MX150 RECEPTACLE TERMINAL

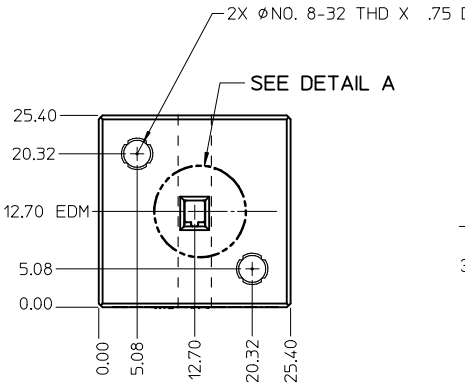
molex MOLEX INCORPORATED

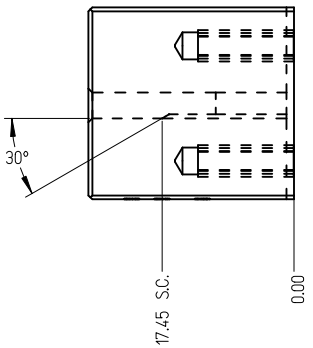
MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-33012-002
SHEET NO.: 2 OF 5

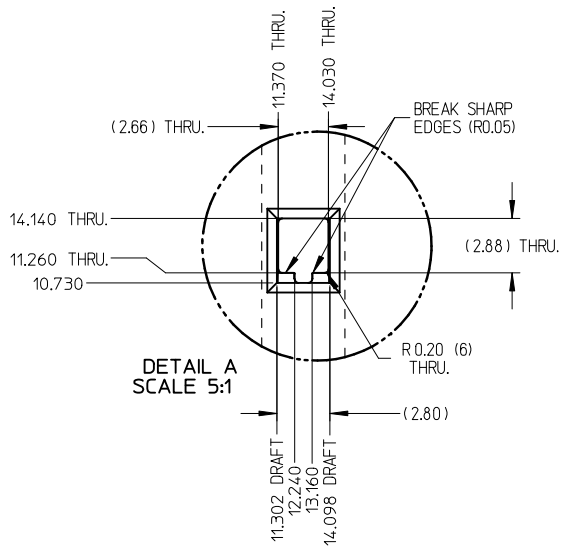
SIZE: C

THIS CHECKING - AID IS FOR SMALL POLARIZATION RIB TERMINALS ONLY

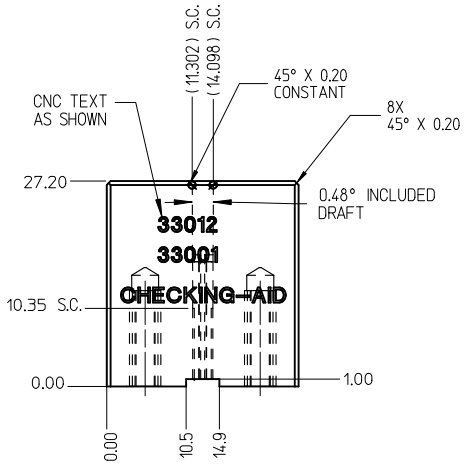
CHECKING - AID ASSEMBLY
SCALE 1:1



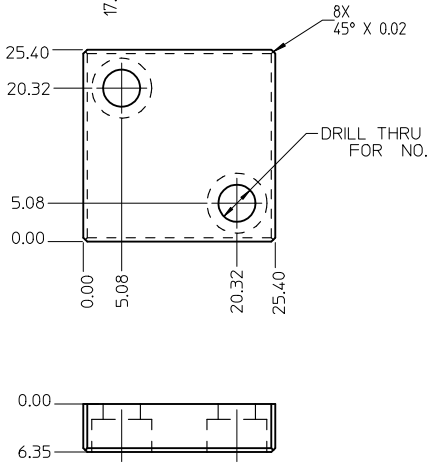




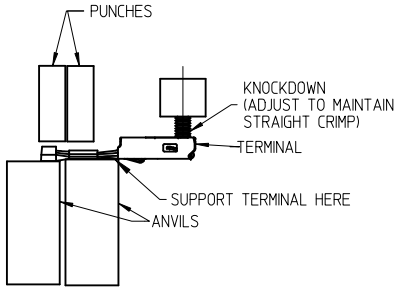
DETAIL A
SCALE 5:1



CHECKING - AID
UPPER



CHECKING - AID
LOWER



CRIMP REQUIREMENTS:

1. CRIMP STRAIGHTNESS MUST BE MAINTAINED USE A KNOCKDOWN TOOL LOCATED AS SHOWN TERMINAL BOX MUST NOT BE DEFORMED
2. AFTER CRIMPING, THE CRIMPED TERMINAL (AND UP TO 5 mm OF WIRE PAST THE INSULATOR CUTOFF TAB) MUST FIT FREELY INTO THE CHECKING-AID SHOWN ON THIS PAGE
3. FOR OTHER MECHANICAL REQUIREMENTS ON CRIMPED TERMINALS, REFER TO SAE/USCAR-21 (5-13-02) SECTIONS 4.2 (VISUAL INSPECTION), 4.2 (CROSS SECTION ANALYSIS) AND 4.4 (CONDUCTOR CRIMP PULLOUT FORCE)

UPPER & LOWER
CHECKING-AID
A2 TOOL STEEL
HARDEN & GRIND
ROCKWELL "C" 56-58

ENTER DESCRIPTION
EC NO: UAU2011-1208 2011/06/28
DRWN:ADHIR
CH'KD:
APPR:BMOSER 2011/07/06
DESCRIPTION
B3
REV

QUALITY SYMBOLS

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± 0.005	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.3	± ---
ANGULAR ± 3 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY

DRAWN BY	L. PULLIAM 2005/06/21
CHECKED BY	A. DHIR 2005/06/21
APPROVED BY	B. MOSER 2005/06/22
MATERIAL NO.	SEE TABLE

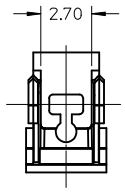
SCALE: 2:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

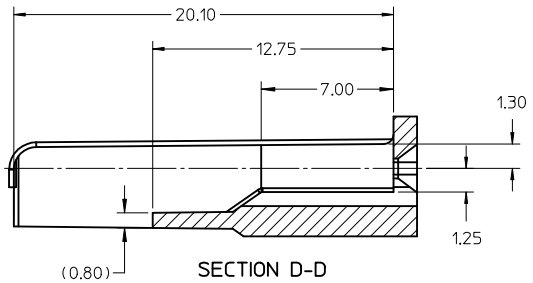
TITLE
MX150
RECEPTACLE TERMINAL

MOLEX INCORPORATED

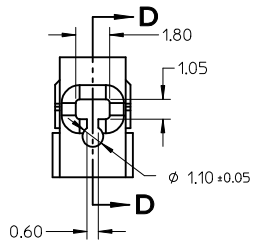
DOCUMENT NO. SD-33012-002
SHEET NO. 3 OF 5

SIZE C



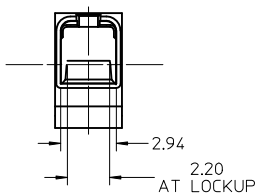


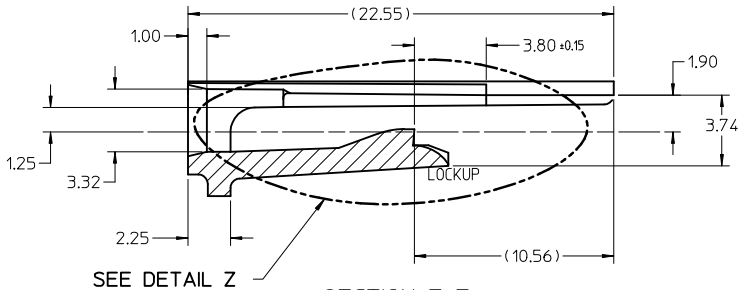
SECTION D-D



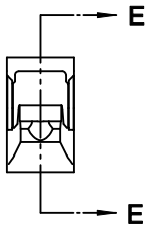
NOTES: UNLESS OTHERWISE SPECIFIED

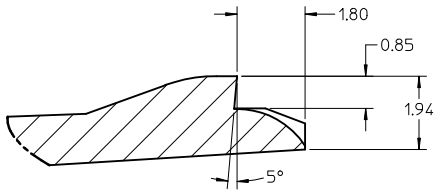
1. TOLERANCES: LINEAR ±0.10
   ANGULAR ±3°
2. ALL DRAFT WITHIN TOLERANCE.
3. MAX RADII ON ALL CORNERS SHOWN SHARP: 0.10
4. MAX FLASH PERMISSIBLE: 0.1
5. EJECTOR PIN MARKS PERMISSIBLE IF FLUSH TO 0.25 BELOW SURFACE.
6. MATERIAL: HOUSING/FINGER SPECIFICATION ENGINEERED FOR MATERIAL WITH THE FOLLOWING PROPERTIES:
   A. FLEXURAL MODULUS = 4,500 TO 9,400 MPa PER ASTM TEST D790
   B. ELONGATION AT YIELD = 2.3% OR BETTER PER ASTM TEST D638 TYPE V
7. CAVITY SPEC FOR USE ONLY WITH MOLEX RECEPTACLE TERMINAL PART NUMBERS SPECIFIED ELSEWHERE ON THIS DRAWING



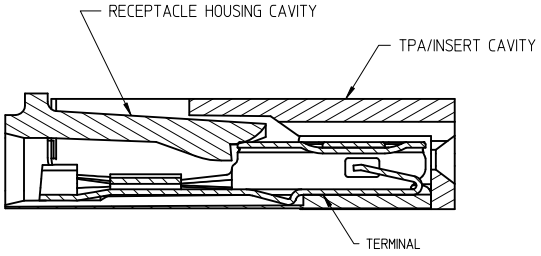


SECTION E-E

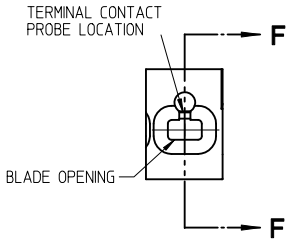




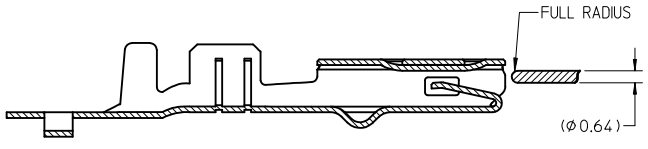
DETAIL Z
SCALE 20:1



SECTION F-F



RECEPTACLE CAVITY ASSEMBLED VIEWS
FOR SMALL POLARIZATION RIB APPLICATIONS
FIG. 1



SECTION D-D
FOR LARGE POLARIZATION RIB APPLICATIONS
FIG. 2

PROBING DOWN THE THROAT MUST USE THIS TERMINAL PROBE

PROBE PIN DETAILS:
MANUFACTURER: LONE STAR INDUSTRIAL
PART NUMBER: LS054R-403-N-4.6
PIN DIAMETER: 0.025 IN (0.64mm)
TIP SHAPE: SPHERICAL
TEL: 915-779-7255

PREFERRED PROBING LOCATION IS NOT ON SPRING MEMBER

IF ELECTRICAL CONTINUITY PROBE TOUCHES SPRING MEMBER USE PROBING AS SHOWN IN FIG. 2

ENTER DESCRIPTION
EC NO: UAU2011-1208 2011/06/28
DRWN:ADHIR
CH'KD:
APPR:BMOSER 2011/07/06
DESCRIPTION
REV
B3

QUALITY SYMBOLS
=0
=0
=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± 0.005	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.3	± ---
ANGULAR ± 3 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: 5:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

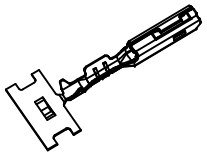
DRAWN BY: L. PULLIAM DATE: 2005/06/21
CHECKED BY: A. DHIR DATE: 2005/06/21
APPROVED BY: B. MOSER DATE: 2005/06/22

TITLE
MX150
RECEPTACLE TERMINAL

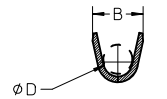
molex MOLEX INCORPORATED

MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-33012-002
SHEET NO.: 4 OF 5

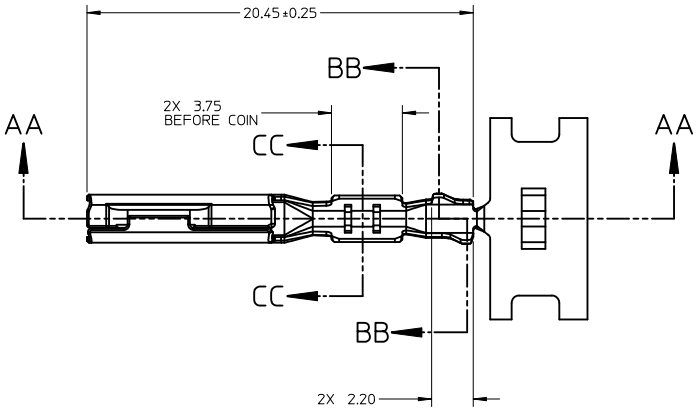
SIZE C

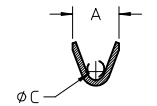


ISO VIEW
SCALE 2:1

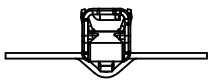


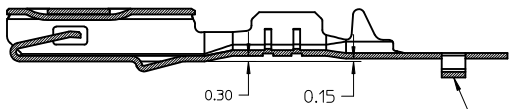
SECTION BB-BB





SECTION CC-CC





SECTION AA-AA

P/N'S 33012-2004/3004
33001-4005/5005

CARRIER BUMP DIRECTION
POINTS DOWN FOR TIN PLATED TERMINAL
POINTS UP FOR PRECIOUS METAL PLATED TERMINAL

ENTER DESCRIPTION
EC NO: UAU2011-1208 2011/06/28
DRWN:ADHIR
CH'KD:
APPR:BMOSER 2011/07/06
DESCRIPTION
B3
REV

QUALITY SYMBOLS
F =0
F =0
F =0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± 0.005	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.3	± ---
ANGULAR ± 3 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: 5:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: L. PULLIAM DATE: 2005/06/21
CHECKED BY: A. DHIR DATE: 2005/06/21
APPROVED BY: B. MOSER DATE: 2005/06/22

TITLE
MX150
RECEPTACLE TERMINAL

MOLEX INCORPORATED

MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-33012-002
SHEET NO.: 5 OF 5
SIZE: C