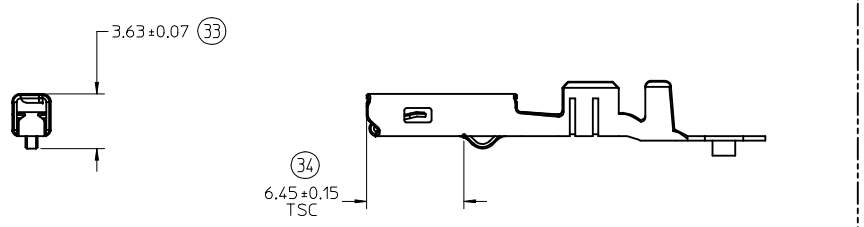
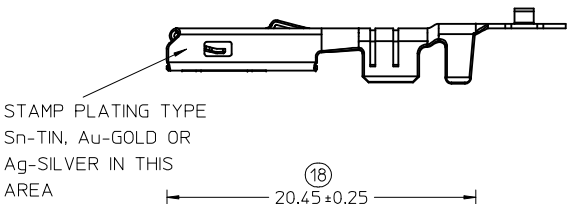
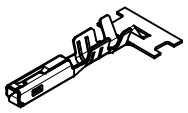
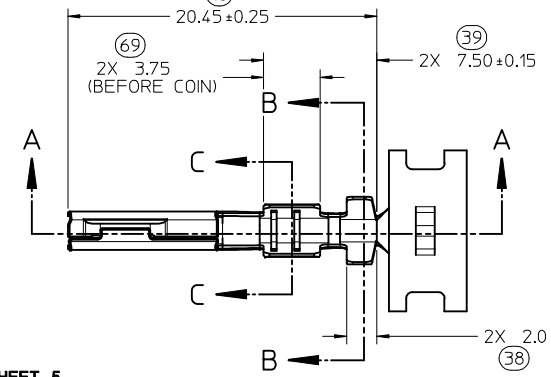


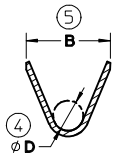
DIMENSIONS FOR LARGE POLARIZATION RIB TERMINAL ONLY





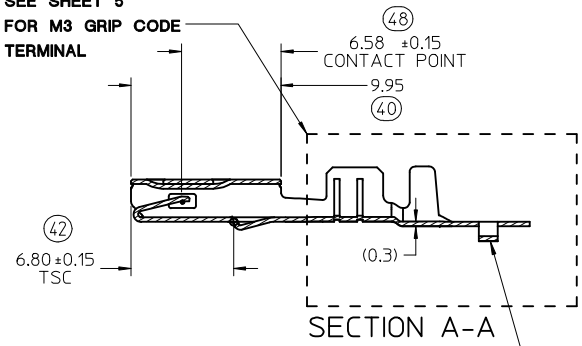
SCALE 2:1



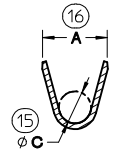


SECTION B-B
SCALE 5:1

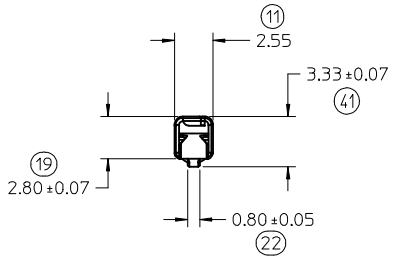
SEE SHEET 5 FOR M3 GRIP CODE TERMINAL

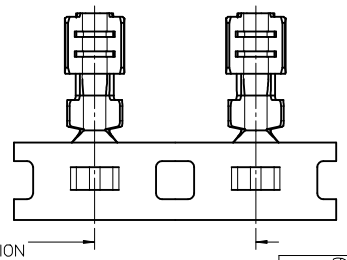


SECTION A-A



SECTION C-C
SCALE 5:1





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

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) (5/2004)
8. MEETS ELECTRICAL CONNECTION SYSTEM DESIGN SPECIFICATION (SDS) REV.11 (5/2002)
9. MEETS FIELD CORRELATED LIFE TEST (FCLT) PER SAE/USCAR-20 (6/2004)
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 (33), (34), (41) & (42) 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: UAU2017-1076
DRWN:WENKATESHSH 2017/05/29
CH'KD:A. DHIR 2017/05/29
APPR:TJSMITH 2017/06/09
DESCRIPTION
C1
REV

QUALITY SYMBOLS
=0
=0
=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.3	± ---
0 PLACE	±	±

ANGULAR ± 3 °
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: 4:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

		DATE
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	

TITLE: MX150 RECEPTACLE TERMINAL

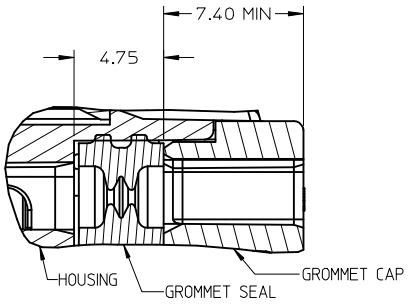
molex

DOCUMENT NO.: SD-33012-002
SHEET NO.: 1 OF 5

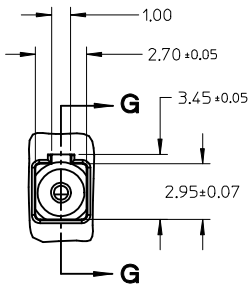
SIZE: C

FAMILY	GENDER	SEALING	PLATING	PART NUMBER	PAYOFF DIRECTION	GRIP CODE	WIRE SIZES*	A ±0.30	B ±0.30	C ±0.30	D ±0.30	SPECIAL CHARACTERISTICS
MX150	RECEPTACLE	MAT SEAL	Sn	33012-2001	RIGHT (B)	14	16/14AWG 1.50-2.00mm²	3.9	4.4	1.7	1.6	HIGH PERFORMANCE Sn
				33012-3001	LEFT (D)							
				33012-2002	RIGHT (B)	18	20/18AWG 0.75-1.00mm²	3.3	3.1	1.3	1.4	
				33012-3002	LEFT (D)							
				33012-2003	RIGHT (B)	22	22AWG	2.5	2.6	0.9	1.0	
				33012-3003	LEFT (D)							
				33012-2004	RIGHT (B)	M3	0.35-0.50mm²	2.5	2.7	0.9	1.54 ±0.1	
				33012-3004	LEFT (D)							
			Au	33001-2003	RIGHT (B)	14	16/14AWG 1.50-2.00mm²	3.9	4.4	1.7	1.6	HIGH PERFORMANCE Au
				33001-3003	LEFT (D)							
				33001-2004	RIGHT (B)	18	20/18AWG 0.75-1.00mm²	3.3	3.1	1.3	1.4	
				33001-3004	LEFT (D)							
				33001-2005	RIGHT (B)	22	22AWG	2.5	2.6	0.9	1.0	
				33001-3005	LEFT (D)							
				33001-2006	RIGHT (B)	M3	0.35-0.50mm²	2.5	2.7	0.9	1.54 ±0.1	
				33001-3006	LEFT (D)							
			Ag	33001-4001	RIGHT (B)	14	16/14AWG 1.50-2.00mm²	3.9	4.4	1.7	1.6	HIGH PERFORMANCE Ag
				33001-5001	LEFT (D)							
				33001-4002	RIGHT (B)	18	20/18AWG 0.75-1.00mm²	3.3	3.1	1.3	1.4	
				33001-5002	LEFT (D)							
				33001-4003	RIGHT (B)	22	22AWG	2.5	2.6	0.9	1.0	
				33001-5003	LEFT (D)							
				33001-4005	RIGHT (B)	M3	0.35-0.50mm²	2.5	2.7	0.9	1.54 ±0.1	
				33001-5005	LEFT (D)							
LARGE POLARIZATION RIB - NOT TO BE USED IN MX150 SEALED CONNECTORS												
MX150	RECEPTACLE	UNSEALED	Sn	33012-2021	RIGHT (B)	14	16/14AWG 1.50-2.00mm²	3.9	4.4	1.7	1.6	HIGH PERFORMANCE Sn
				33012-3021	LEFT (D)							
				33012-2022	RIGHT (B)	18	20/18AWG 0.75-1.00mm²	3.3	3.1	1.3	1.4	
				33012-3022	LEFT (D)							
				33012-2023	RIGHT (B)	22	22AWG 0.35-0.50mm²	2.5	2.6	0.9	1.0	
				33012-3023	LEFT (D)							
			Au	33001-2021	RIGHT (B)	14	16/14AWG 1.50-2.00mm²	3.9	4.4	1.7	1.6	HIGH PERFORMANCE Au
				33001-3021	LEFT (D)							
				33001-2022	RIGHT (B)	18	20/18AWG 0.75-1.00mm²	3.3	3.1	1.3	1.4	
				33001-3022	LEFT (D)							
				33001-2023	RIGHT (B)	22	22AWG 0.35-0.50mm²	2.5	2.6	0.9	1.0	
				33001-3023	LEFT (D)							
			Ag	33001-4021	RIGHT (B)	14	16/14AWG 1.50-2.00mm²	3.9	4.4	1.7	1.6	HIGH PERFORMANCE Ag
				33001-5021	LEFT (D)							
				33001-4022	RIGHT (B)	18	20/18AWG 0.75-1.00mm²	3.3	3.1	1.3	1.4	
				33001-5022	LEFT (D)							
				33001-4023	RIGHT (B)	22	22AWG 0.35-0.50mm²	2.5	2.6	0.9	1.0	
				33001-5023	LEFT (D)							

* REFERENCE AS-33012-002 FOR SPECIFIC WIRE TYPES



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: UAU2017-1076
DRWN:WENKATESHSH 2017/05/29
CHKD:A. DHIR 2017/05/29
APPR:T.SMITH 2017/06/09
DESCRIPTION
C1
REV

QUALITY SYMBOLS
=0
=0
=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.3	± ---
0 PLACE	±	±

ANGULAR ± 3 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

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

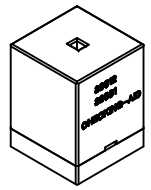
DRAWN BY: L. PULLIAM DATE: 2005/06/21
CHECKED BY: A. DHIR DATE: 2005/06/21
APPROVED BY: B. MOSER DATE: 2005/06/22
MATERIAL NO.: SEE TABLE

TITLE: MX150 RECEPTACLE TERMINAL

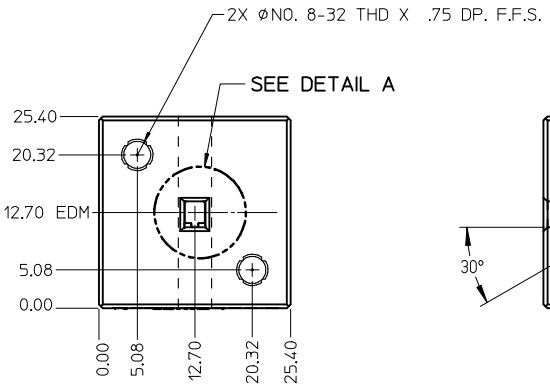
molex

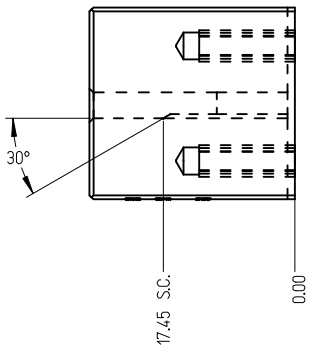
DOCUMENT NO.: SD-33012-002
SHEET NO.: 2 OF 5
SIZE: C

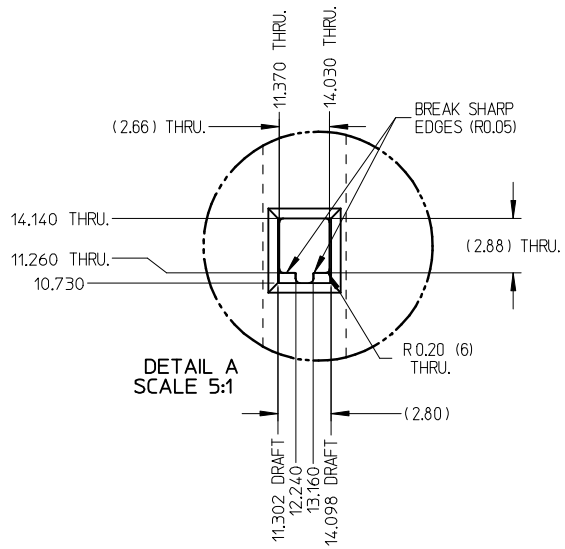
THIS CHECKING - AID IS FOR SMALL POLARIZATION RIB TERMINALS ONLY



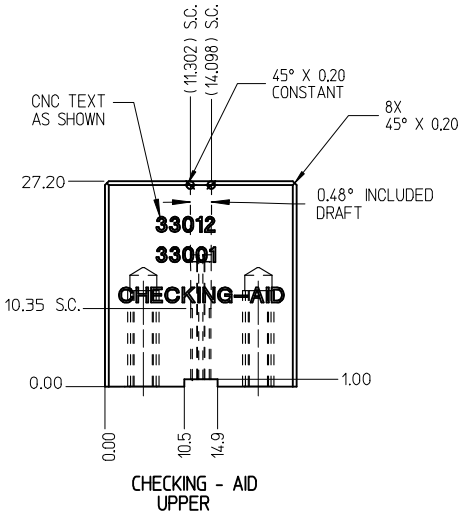
CHECKING - AID ASSEMBLY
SCALE 1:1



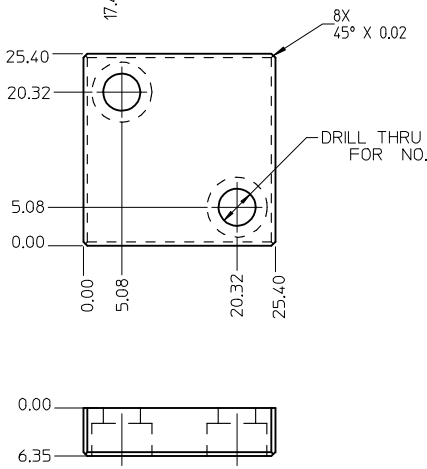




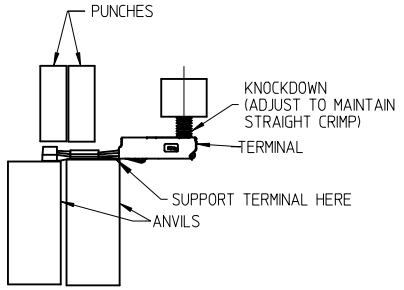
DETAIL A
SCALE 5:1



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: UAU2017-1076
DRWN:WENKATESHSH 2017/05/29
CH'KD:A. DHIR 2017/05/29
APPR:TJSMITH 2017/06/09
DESCRIPTION
C1
REV

QUALITY SYMBOLS

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.3	± ---
0 PLACE	±	±

ANGULAR ± 3 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

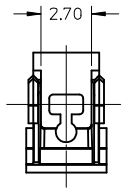
DIMENSION STYLE: MM ONLY
SCALE: 2:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

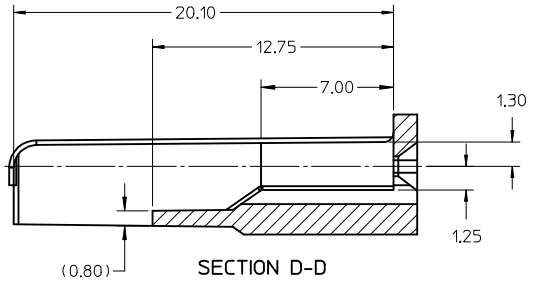
DRAWN BY	L. PULLIAM	DATE 2005/06/21
CHECKED BY	A. DHIR	DATE 2005/06/21
APPROVED BY	B. MOSER	DATE 2005/06/22

TITLE
MX150
RECEPTACLE TERMINAL

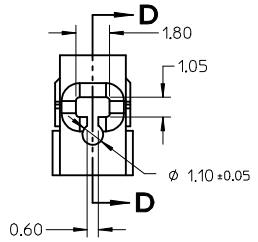
molex

MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-33012-002
SHEET NO.: 3 OF 5
SIZE: C



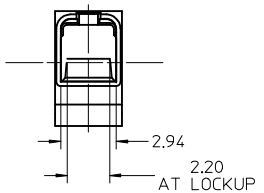


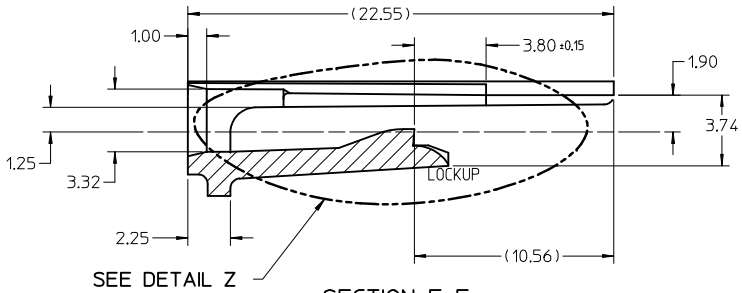
SECTION D-D



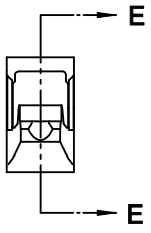
NOTES: UNLESS OTHERWISE SPECIFIED

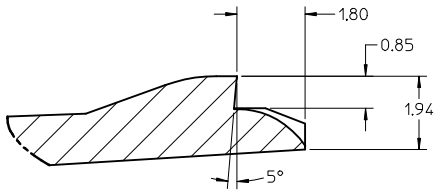
1. TOLERANCES: LINEAR ±0.10
   ANGULAR ±3°
2. ALL DRAFT WITHIN TOLERANCE.
3. MAX RADII ON ALL CORNERS SHOWN SHARP: 0.10
4. MAX FLASH PERMISSIBLE: 0.1
5. EJECTOR PIN MARKS PERMISSIBLE IF FLUSH TO 0.25 BELOW SURFACE.
6. MATERIAL: HOUSING/FINGER SPECIFICATION ENGINEERED FOR MATERIAL WITH THE FOLLOWING PROPERTIES:
   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



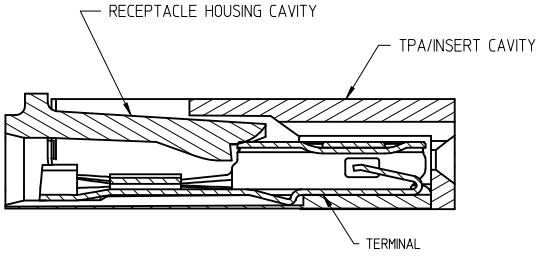


SECTION E-E



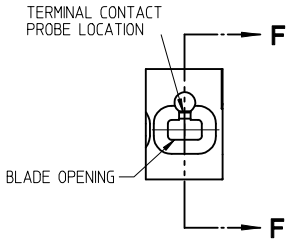


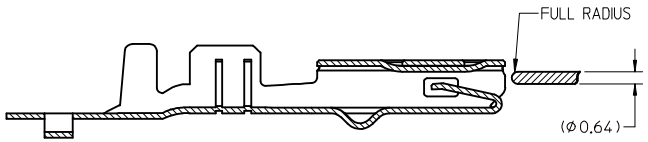
DETAIL Z
SCALE 20:1

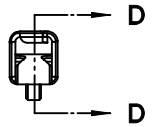


SECTION F-F

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







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

PREFERRED PROBING LOCATION
IS NOT ON SPRING MEMBER

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

PROBING DOWN THE
THROAT MUST USE
THIS TERMINAL PROBE

FOR PROBING INFORMATION REFERENCE
MOLEX MX150 APPLICATION SPEC AS-33472-100

ENTER DESCRIPTION
EC NO: UAU2017-1076
DRWN:WENKATESHS 2017/05/29
CHKD:A. DHIR 2017/05/29
APPR:TJSMITH 2017/06/09
DESCRIPTION
C1
REV

QUALITY SYMBOLS
F =0
F =0
F =0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.10	± ---
1 PLACE	± 0.3	± ---
0 PLACE	±	±

ANGULAR ± 3 °
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

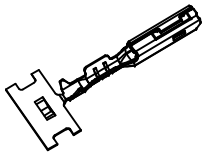
DIMENSION STYLE: MM ONLY
SCALE: 5:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

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

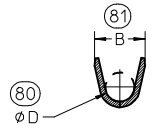
TITLE
MX150
RECEPTACLE TERMINAL

molex

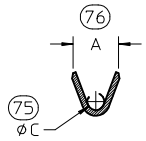
MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-33012-002
SHEET NO.: 4 OF 5
SIZE: C



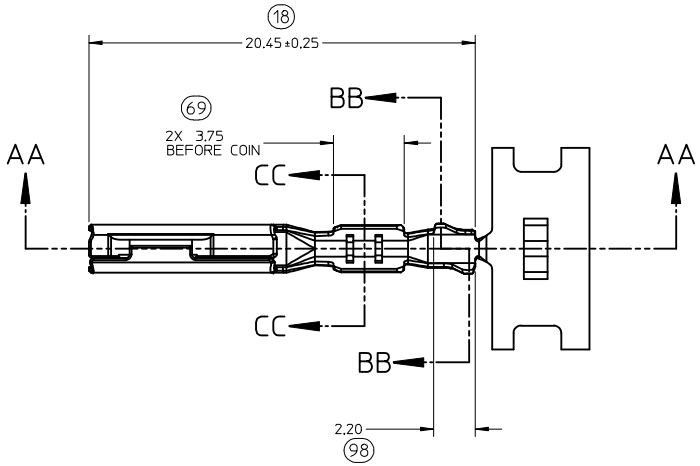
ISO VIEW
SCALE 2:1

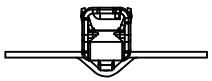


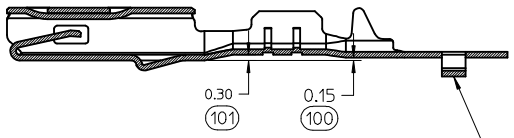
SECTION BB-BB



SECTION CC-CC







SECTION AA-AA

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

M3 GRIP CODE TERMINAL
SEE TABLE (SHEET 2) FOR PART NUMBERS

ENTER DESCRIPTION
EC NO: UAU2017-1076
DRWN:WENKATESHSH 2017/05/29
CH'KD:A. DHIR 2017/05/29
APPR:TJSMITH 2017/06/09
DESCRIPTION
C1
REV

QUALITY SYMBOLS
F =0
F =0
F =0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
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
MATERIAL NO.: SEE TABLE

TITLE
MX150
RECEPTACLE TERMINAL

molex MOLEX INCORPORATED

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