

**THIS PRODUCT MANUFACTURED WITH LEAD-FREE PROCESSING**

**DESIGNED & DIMENSIONED IN MILLIMETERS [INCHES]**

BE23S-XXXXX-XX-XX-XXXX

DO NOT SCALE FROM THIS PRINT

**PATENT NUMBER 7,544,093**

**CABLE CALLOUT END 1**  
23S: MWC-2350-01 CABLE, WITH PRB3-P-C-XX-ST-CS3 CONNECTOR (SEE FIG 4, SHT 4)

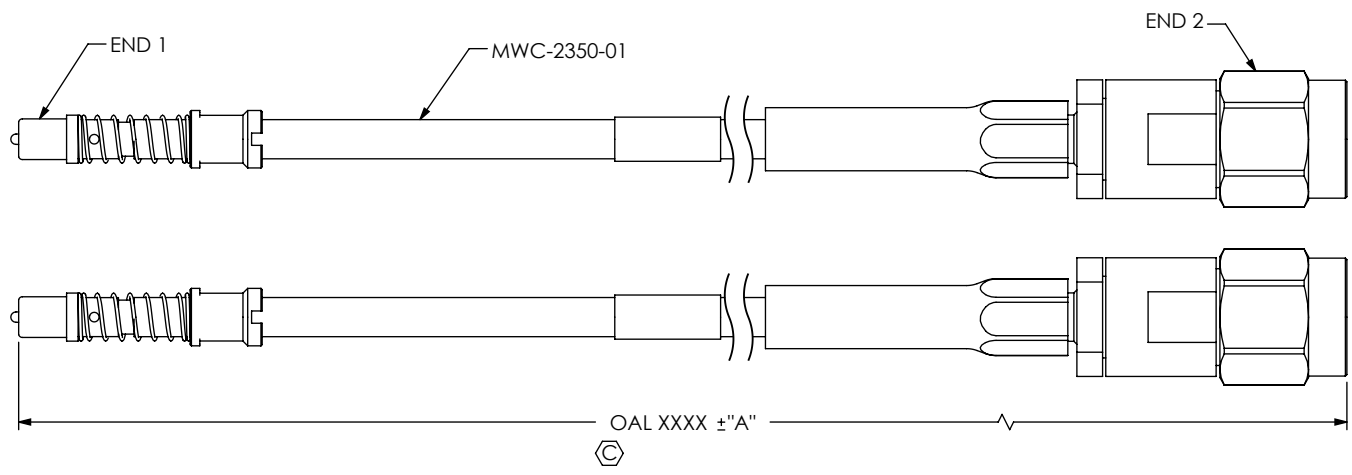
**OVERALL CABLE LENGTH (MILLIMETERS)**  
0100-9999 [3.9 - 393.7] (SEE NOTE 4)

**END 2 CONNECTOR**  
(SEE TABLE 1, SHT 2)

**No. OF PHASE MATCHED CABLES**  
-02: (2 CABLES FOR THIS PART NUMBER)  
-04: (4 CABLES FOR THIS PART NUMBER)  
-06: (6 CABLES FOR THIS PART NUMBER)  
-08: (8 CABLES FOR THIS PART NUMBER)

**PHASE MATCHING SPEC (RANGE)**  
⊖-02: 2.0 PICO-SECOND  
-05: 5.0 PICO-SECONDS  
-10: 10.0 PICO-SECONDS (SEE NOTE 5)

TABLE 2	
OVERALL LENGTH	"A"
0100-0200 [3.94-7.87]	+3.0 [.12]/-0.0 [.00]
0201-0500 [7.91-19.69]	+5.0 [.20]/-0.0 [.00]
0501-1100 [19.72-43.30]	+10.0 [.40]/-0.0 [.00]




**FIG 1**  
BE23S-92SPP-XX-02-XXXX SHOWN

F:\DWG\MISC\MKTG\BE23S-XXXX-XX-XX-XXXX-MKT.SLDDRW

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS [INCHES]. TOLERANCES ARE:  
DECIMALS ANGLES  
.X: ±0.3 [.01] 5°  
.XX: ±0.13 [.005]  
.XXX: ±0.051 [.0020]

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**MATERIAL:** DO NOT SCALE DRAWING SHEET SCALE: 2:1  
INSULATORS: PTFE [SCC31] PCTFE OR ULTEM-1000(OTHERS)  
GASKETS: SILICONE  
INNER PIN, RETAINER, FERRULE, NUT: BRASS  
C-RING: STAINLESS STEEL  
SHELLS, INSERT, CABLE BODY, SPRING: BRASS OR STAINLESS STEEL



520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail: info@SAMTEC.com code: 55322

<b>DESCRIPTION:</b> BULLSEYE 23 AWG CABLE ASSEMBLY	
<b>DWG. NO.</b> BE23S-XXXXX-XX-XX-XXXX	
<b>BY:</b> EMMA CHEN 3/10/2014	<b>SHEET 1 OF 7</b>

- NOTES:
- ⊖ REPRESENTS A CRITICAL DIMENSION
  - ⊖ ASSEMBLY TO BE 100% TESTED FOR OPENS, SHORTS & HI-POT TESTED (PER TABLE 3, AC OR DC), THE HI-POT VOLTAGE FOR THE ASSEMBLY SHOULD BE SET TO THE END OPTION WITH THE LOWEST TEST VOLTAGE RATING.
  - CABLE ASSEMBLY TO HAVE PROTECTIVE CAP ASSEMBLED ON EACH END AND TO BE INDIVIDUALLY PACKAGED IN ESD BAG (BG-09-12).
  - CABLE LENGTHS LONGER THAN 1000 MILLIMETERS ARE NOT SUPPORTED BY S.I. TEST DATA
  - PARTS TO BE PHASE MATCHED PER CO-HD-WI-3062-M.
  - FERRULE AND SPRING ARE FREE FLOATING AND ARE NOT STATIONARY.

PATENT NUMBER  
7,544,093

TABLE 1

END 2 OPTION	SERIES	GENDER	CONFIGURATION	PLATING			FIGURE
				CENTER CONTACT	OUTER CONTACT	OTHER COMPONENTS	
-92SJP	2.92 MM	JACK	STRAIGHT	30μ" GOLD	STAINLESS STEEL	3μ" GOLD	SHT 3, FIG 2
-92SPP	2.92 MM	PLUG	STRAIGHT	30μ" GOLD	STAINLESS STEEL	3μ" GOLD	SHT 3, FIG 3
-SCC31	Bull's Eye ©	PLUG	STRAIGHT	30μ" GOLD	3μ" GOLD	3μ" GOLD	SHT 4, FIG 4
-35SJP	3.50 MM	JACK	STRAIGHT	30μ" GOLD	STAINLESS STEEL	3μ" GOLD	SHT 4, FIG 5
-35SPP	3.50 MM	PLUG	STRAIGHT	30μ" GOLD	STAINLESS STEEL	3μ" GOLD	SHT 5, FIG 6

TABLE 3

END OPTION	SUBTRACTOR	STRIP DIMENSIONS				HI POT	
		"Y"	"B"	"C"	"D"	"DC"	"AC"
-92SJP	7.7 [0.30]	2.25 [0.089]	3.25 [0.128]	6.75 [0.266]	1000	1000	
-92SPP	8.4 [0.33]	2.25 [0.089]	3.25 [0.128]	6.75 [0.266]	1000	1000	
-SCC31	1.7 [0.07]	2.16 [0.085]	2.16 [0.085]	5.94 [0.234]	1000	750	
-35SJP	8.3 [0.33]	1.65 [0.065]	2.45 [0.096]	5.95 [0.234]	1000	1000	
-35SPP	9.2 [0.36]	1.65 [0.065]	2.45 [0.096]	5.95 [0.234]	1000	1000	

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SHEET SCALE: 1:1



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DWG. NO.  
BE23S-XXXXXX-XX-XX-XXXX

BY:EMMA CHEN 3/10/2014 SHEET 2 OF 7

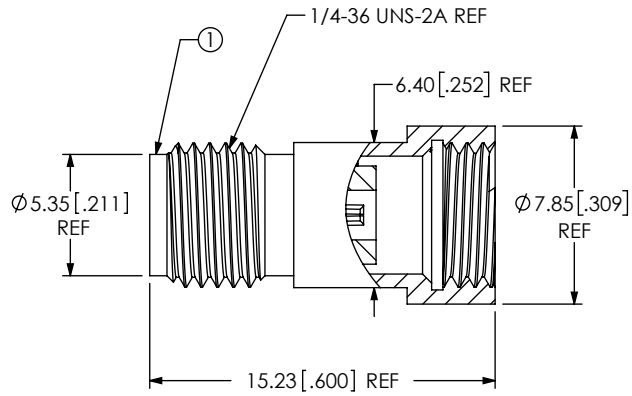
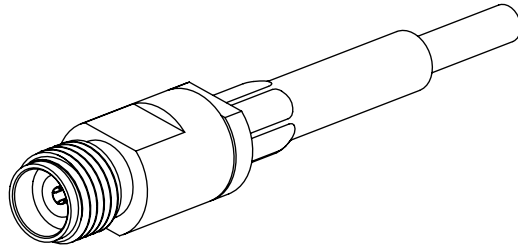
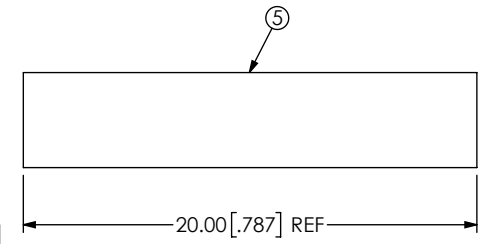
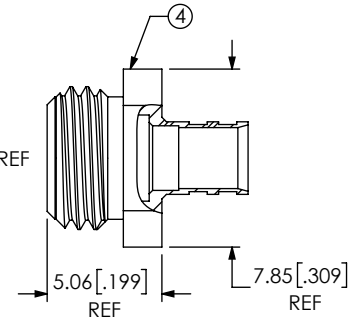
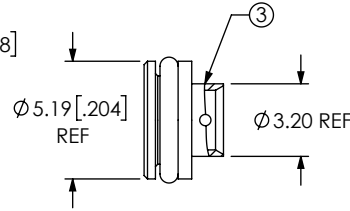
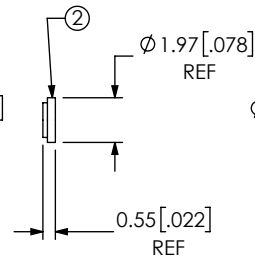


FIG 2  
-92SJP SHOWN



BOM		
ITEM	COMPONENT	-HP
1	SUB ASSEMBLY	SUB-292PS-J-C-HP-ST-CS3
2	INSULATOR	292-ST-INS-CS3
3	SUB CABLE BODY	SUB-292-C-F-ST-CS3-CBDY
4	BODY	292PS-C-P-ST-CA7-BDY
5	HEAT SHRINK	HST-0.125-02-BLK-A

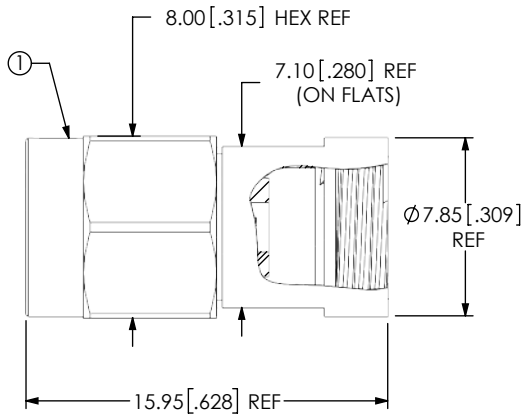
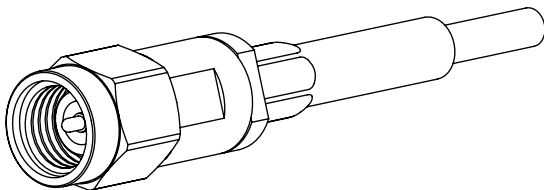
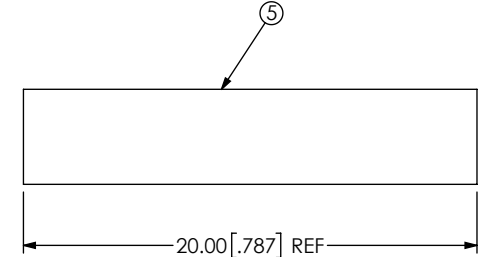
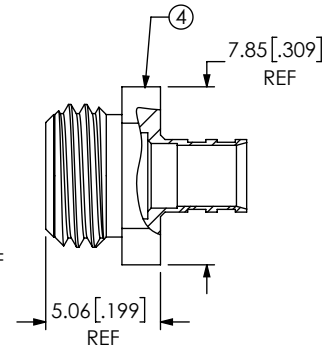
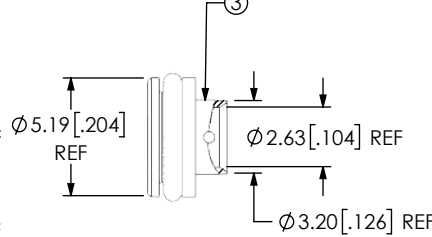
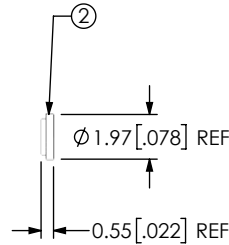


FIG 3  
-92SPP SHOWN



BOM		
ITEM	COMPONENT	-HP
1	SUB ASSEMBLY	SUB-292PS-P-C-HP-ST-CS3
2	INSULATOR	292-ST-INS-CS3
3	SUB CABLE BODY	SUB-292-C-F-ST-CS3-CBDY
4	BODY	292PS-C-P-ST-CA7-BDY
5	HEAT SHRINK	HST-0.125-02-BLK-A

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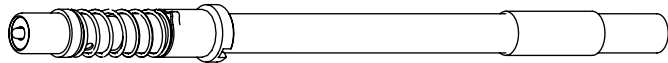
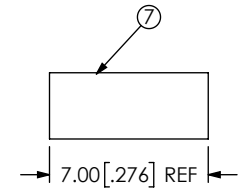
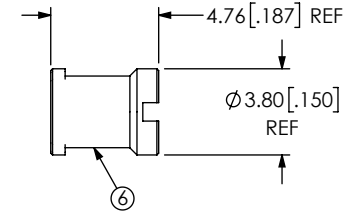
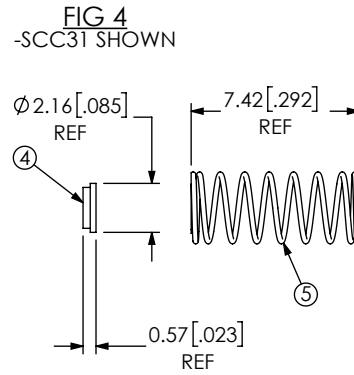
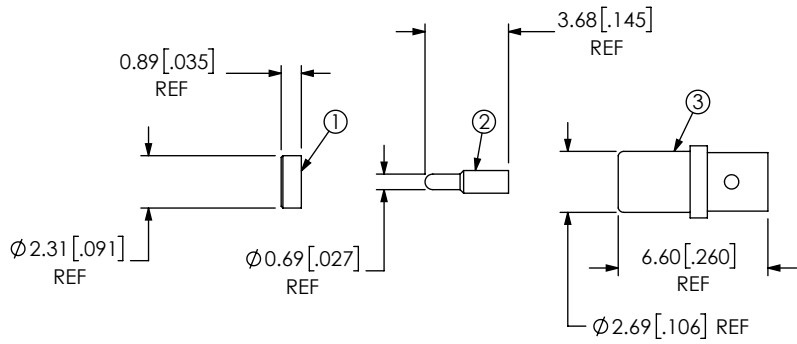


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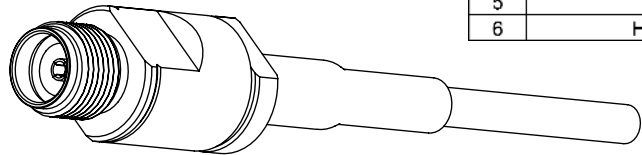
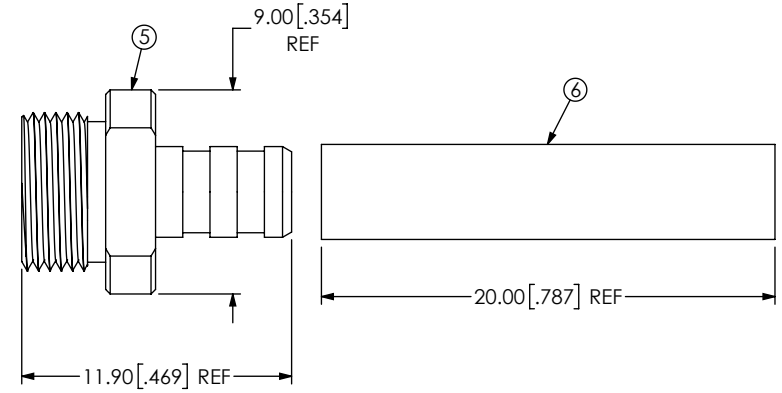
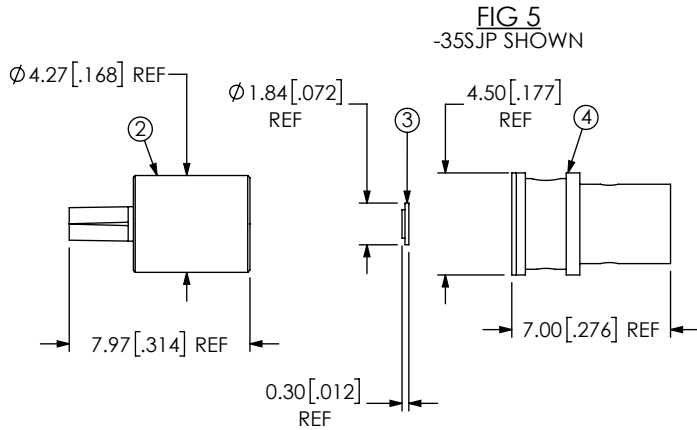
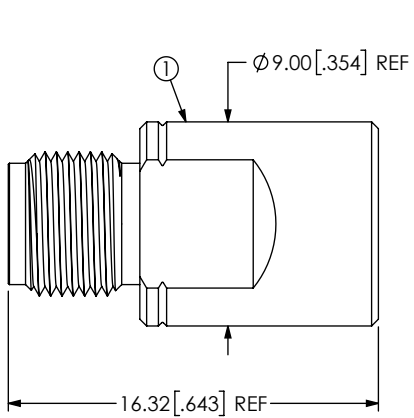
DESCRIPTION:  
BULLSEYE 23 AWG CABLE ASSEMBLY

DWG. NO.  
BE23S-XXXXX-XX-XX-XXXX

BY:EMMA CHEN 3/10/2014 SHEET 3 OF 7



BOM		
ITEM	COMPONENT	-HF
1	INSULATOR 1	PRB3-INS-003
2	PIN	PRB3-PIN-002-H
3	FERRULE	PRB3-FER-002-F
4	RETAINER	PRB3-RET-002-F
5	SPRING	PRB3-SPR-002
6	INSULATOR 2	PRB3-INS-004
7	HEAT SHRINK	HST-0.125-02-BLK



BOM		
ITEM	COMPONENT	-HP
1	SHELL	350-J-C-P-ST-CS3-SHL
2	SUB SOCKET ASSEMBLY	SUB-350-J-C-HP-ST-CS3-SKT
3	INSULATOR	350-ST-CS3-INS
4	CABLE BODY	350-C-F-ST-CS3-CBDY
5	BODY	350-C-P-ST-CS3-BDY
6	HEAT SHRINK	HST-0.125-02-BLK-A

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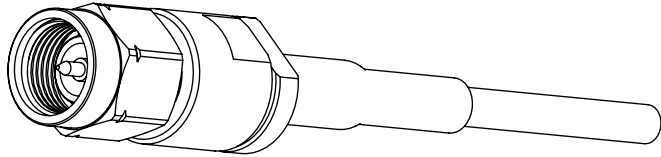
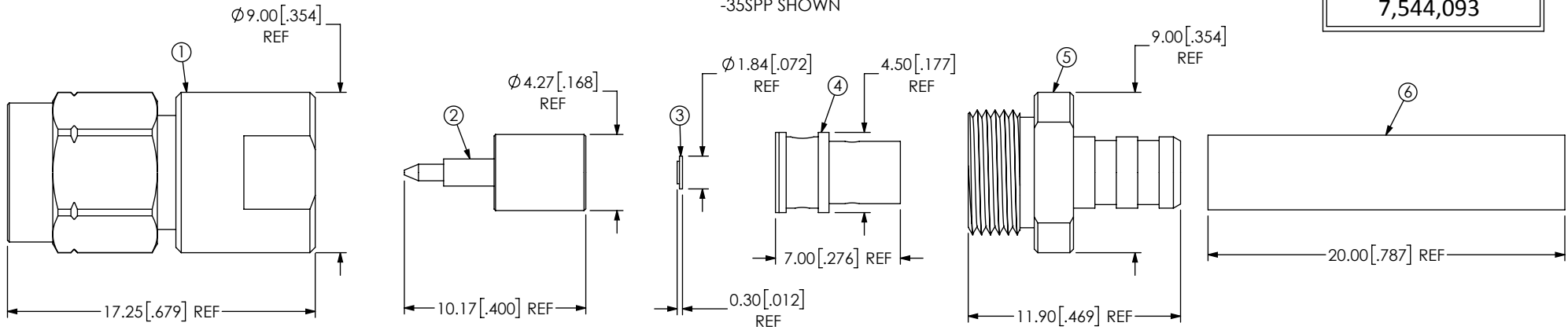
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e-Mail: info@SAMTEC.com code: 55322

DESCRIPTION:  
BULLSEYE 23 AWG CABLE ASSEMBLY

DWG. NO.  
BE23S-XXXXX-XX-XX-XXXX

BY:EMMA CHEN 3/10/2014 SHEET 4 OF 7

FIG 6  
-35SPP SHOWN



BOM		
ITEM	COMPONENT	-HP
1	SUB SHELL ASSEMBLY	SUB-350-P-C-P-ST-CS3-SHL
2	SUB PIN ASSEMBLY	SUB-350-P-C-HP-ST-CS3-PIN
3	INSULATOR	350-ST-CS3-INS
4	CABLE BODY	350-C-F-ST-CS3-CBDY
5	BODY	350-C-P-ST-CS3-BDY
6	HEAT SHRINK	HST-0.125-02-BLK-A

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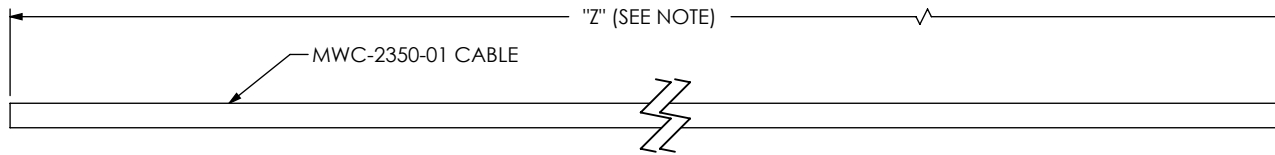
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DESCRIPTION:  
BULLSEYE 23 AWG CABLE ASSEMBLY

DWG. NO.  
BE23S-XXXXX-XX-XX-XXXX

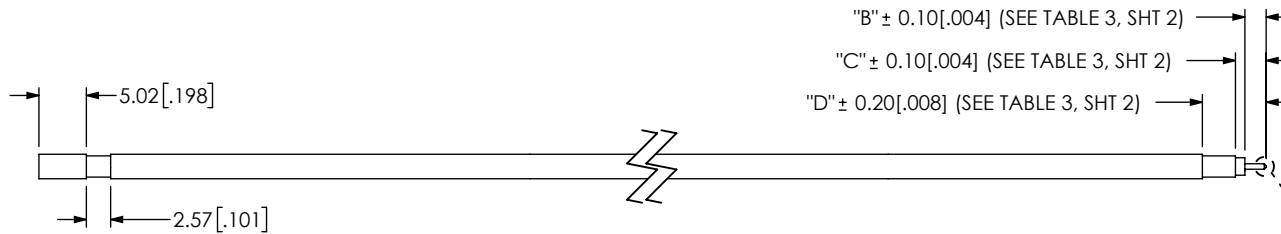
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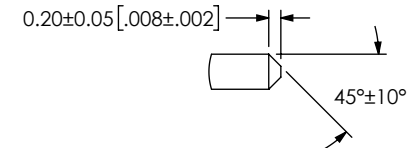
IN PROCESS 1  
CUT CABLE TO LENGTH

NOTE: "Z" = OAL - 1.70[.067] - "Y"(END 2)

(Bull's Eye ®)  
IN PROCESS 2  
STRIP AND LOCATE JACKET

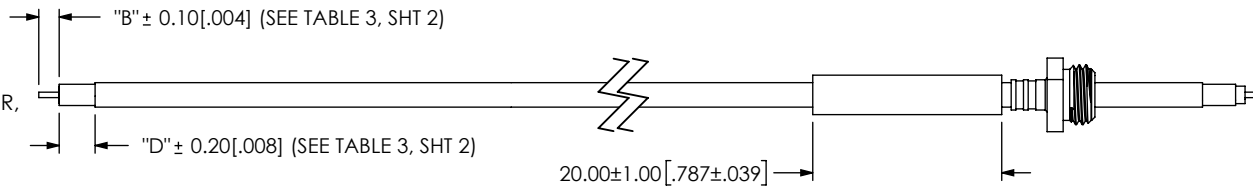


IN PROCESS 2  
STRIP CABLE &  
CHAMFER CENTER CONDUCTOR



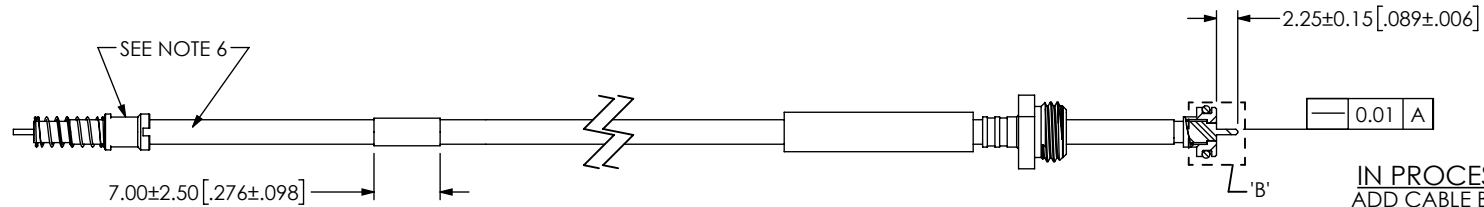
DETAIL 'A'  
SCALE 8 : 1

IN PROCESS 3  
STRIP AND TIN INNER CONDUCTOR,  
REMOVE CUT JACKET

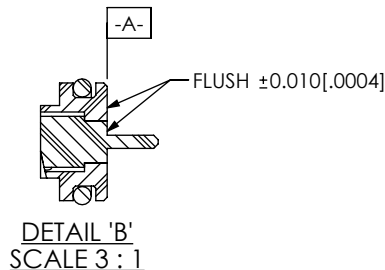


IN PROCESS 3  
ADD BODY & HEAT SHRINK

IN PROCESS 4  
ADD RETAINER, SPRING  
AND HEAT SHRINK TUBE



IN PROCESS 4  
ADD CABLE BODY  
SOLDER CABLE TO CABLE BODY  
TRIM DIELECTRIC TO BE FLUSH WITH BODY



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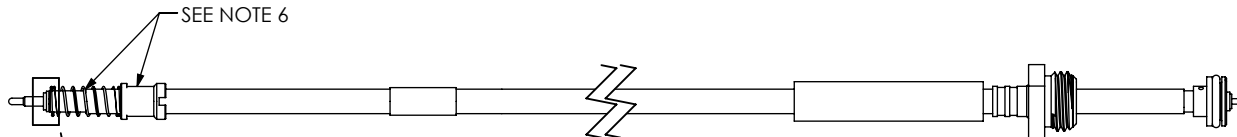
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DESCRIPTION:  
BULLSEYE 23 AWG CABLE ASSEMBLY

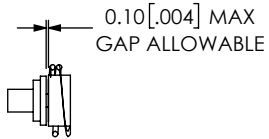
DWG. NO.  
BE23S-XXXXX-XX-XX-XXXX

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**IN PROCESS 5**  
ADD INSULATOR 2 AND  
INDUCTIVE SOLDER PIN

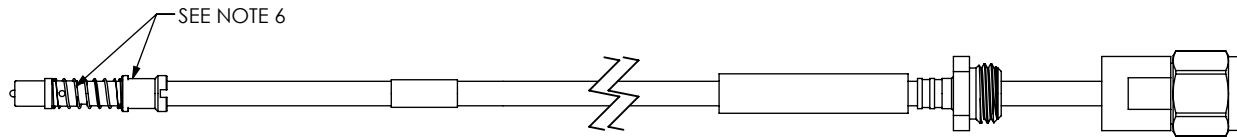


**IN PROCESS 5**  
ADD GASKET



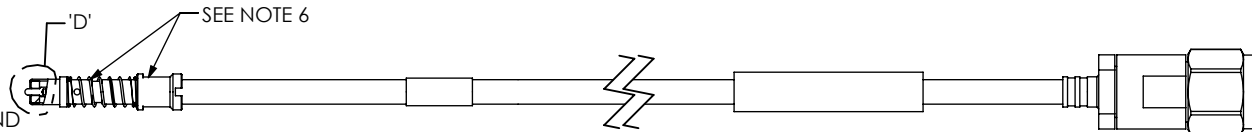
**DETAIL 'C'**  
SCALE 3 : 1

**IN PROCESS 6**  
ADD AND SOLDER FERRULE



**IN PROCESS 6**  
ADD SUB ASSEMBLY

**IN PROCESS 7**  
ADD INSULATOR 1 AND COIN END



**IN PROCESS 7**  
TORQUE SUB ASSEMBLY TO CABLE BODY,  
20-30 IN-LBS

$R0.25 \pm 0.08 [0.10 \pm 0.003]$   
(AFTER COINING)

$\phi 2.69 \pm 0.05 [1.06 \pm 0.002]$   
(AFTER COINING)

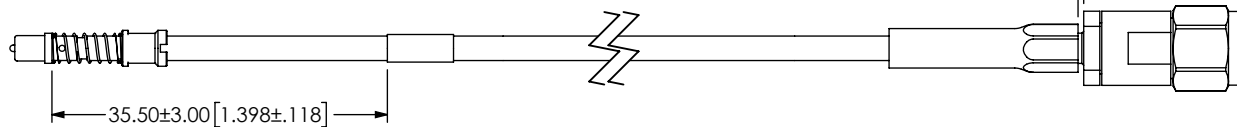
0.41 [0.016]

(LENGTH OF COINED SECTION)

**DETAIL 'D'**  
SCALE 3 : 1

$0.60 \pm 0.15 [0.024 \pm 0.006]$   
(MAX GAP)

**IN PROCESS 8**  
ACTIVATE HEAT SHRINK



**IN PROCESS 8**  
ACTIVATE HEAT SHRINK

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DO NOT SCALE DRAWING

SHEET SCALE: 5:4

DESCRIPTION:  
BULLSEYE 23 AWG CABLE ASSEMBLY

DWG. NO.  
BE23S-XXXXX-XX-XX-XXXX

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