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REV.
B

AS39029/25

FEDERAL SUPPLY CLASS
5999

RATIONALE

REVISE TO IMPROVE DRAWING/DIMENSION QUALITY, UPDATE REFERENCES, REMOVE COMMERCIAL CABLE PART NUMBERS, ALIGN SPECIFICATION WITH SAE GUIDELINES, AND REVIEW SPECIFICATION FOR KNOWN TECHNICAL PROBLEMS.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS39029.

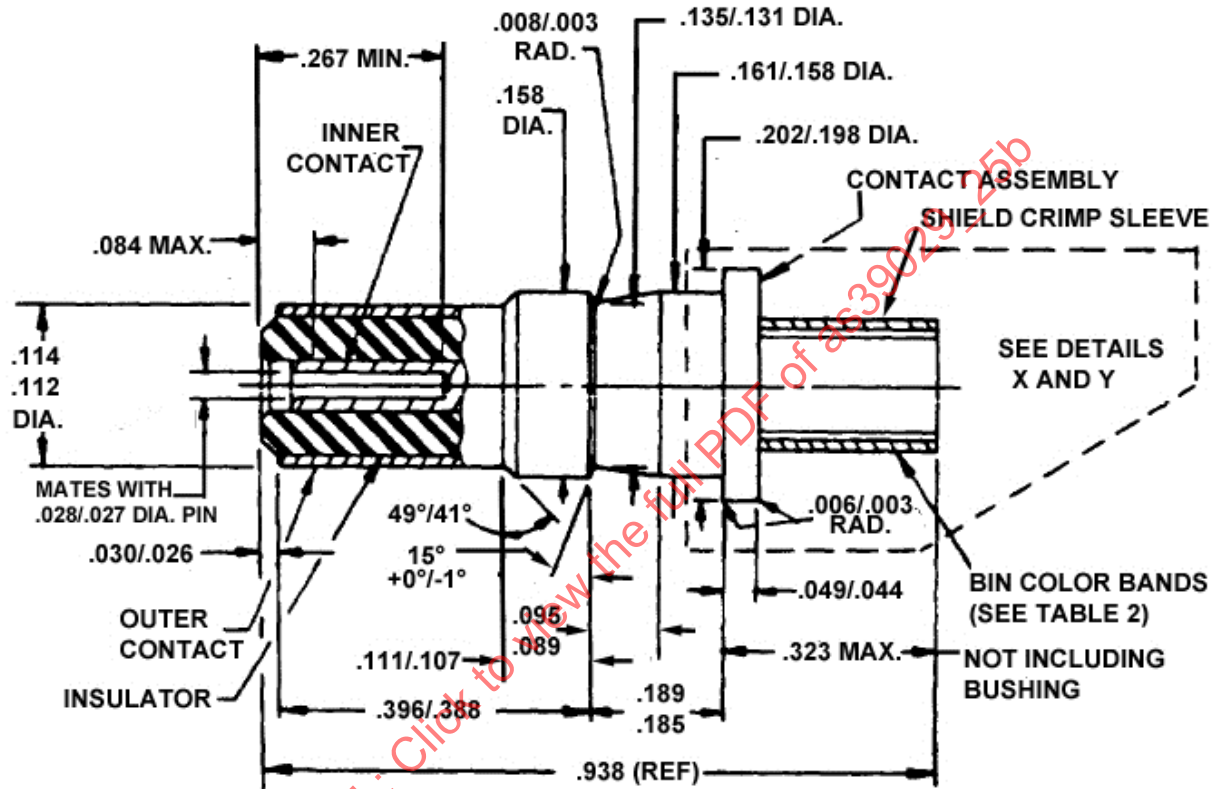
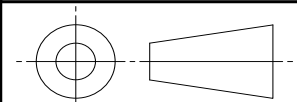


FIGURE 1 - AS39029/25 SHIELDED PIN CONTACT

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on this Technical Report, please visit
<http://www.sae.org/technical/standards/AS39029/25B>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029



AEROSPACE STANDARD

(R) CONTACTS, ELECTRICAL CONNECTOR, PIN,
CRIMP REMOVABLE, SHIELDED
(FOR MIL-DTL-26482 SERIES 1 CONNECTORS)

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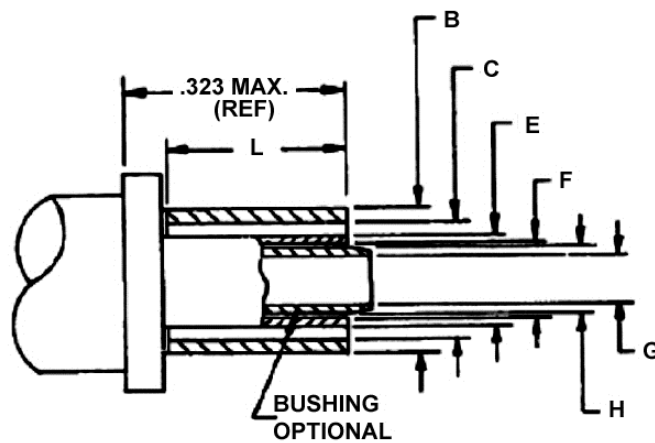
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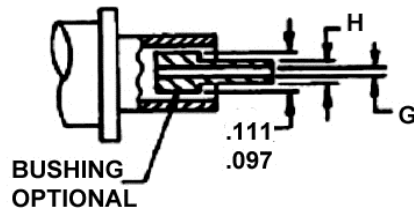
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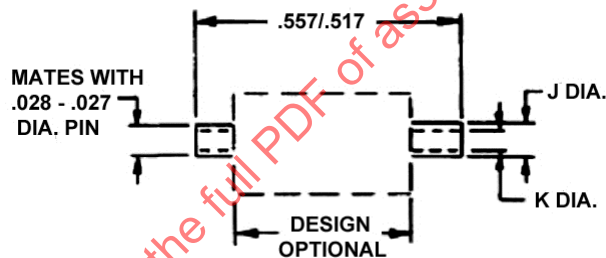
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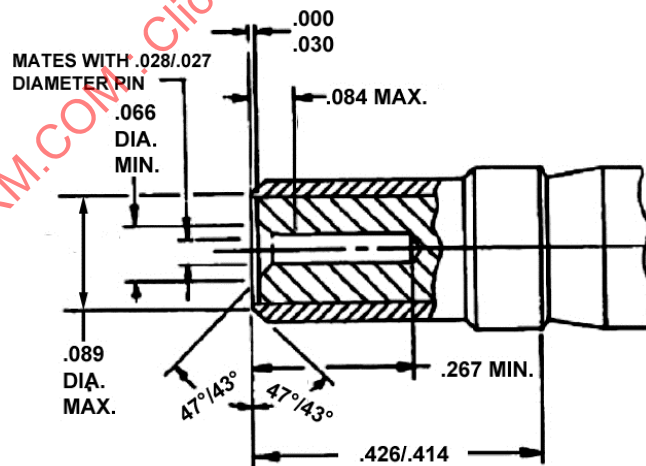
DETAIL X – WIRE TERMINATION END
(BIN CODES 204 AND 206)



DETAIL Y – WIRE TERMINATION END
(BIN CODE 205)



INNER CONTACT



PIN END OPTIONAL DESIGN

FIGURE 1 - AS39029/25 SHIELDED PIN CONTACT (CONTINUED)



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TABLE 1 - FIGURE 1 DIMENSIONS (METRIC EQUIVALENTS)

INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
.003	0.076	.030	0.762	.084	2.13	.112	2.84	.185	4.70	.388	9.86	.938	23.83
.006	0.152	.031	0.787	.089	2.26	.114	2.90	.189	4.80	.396	10.06		
.008	0.203	.034	0.864	.095	2.41	.131	3.33	.198	5.03	.414	10.52		
.026	0.660	.044	1.12	.097	2.46	.135	3.43	.202	5.13	.426	10.82		
.027	0.686	.049	1.24	.107	2.72	.158	4.01	.267	6.78	.517	13.13		
.028	0.711	.066	1.68	.111	2.82	.161	4.09	.323	8.20	.557	14.15		

TABLE 2 - CONTACT DIMENSIONS

BIN CODE	B	C	E	F	G	H	J	K	L
204	.201	.161	.136	.1150	.069	.106	.055	.030	.270
	(5.11)	(4.09)	(3.45)	(2.92)	(1.75)	(2.69)	(1.40)	(0.762)	(6.86)
	.189	.151	.126	.1065	.065	.102	.045	.020	.230
	(4.80)	(3.84)	(3.20)	(2.71)	(1.65)	(2.59)	(1.14)	(0.508)	(5.84)
205	N/A	N/A	.136	.1150	.047	.076	.055	.030	.330
			(3.45)	(2.92)	(1.19)	(1.93)	(1.40)	(0.762)	(8.38)
			.126	.1065	.037	.066	.045	.020	.290
			(3.20)	(2.71)	(.94)	(1.68)	(1.14)	(0.508)	(7.37)
206	.201	.161	.136	.1150	.058	.106	.067	.044	.270
	(5.11)	(4.09)	(3.45)	(2.92)	(1.47)	(2.69)	(1.70)	(1.12)	(6.86)
	.189	.151	.126	.1065	.055	.102	.057	.034	.230
	(4.80)	(3.84)	(3.20)	(2.71)	(1.40)	(2.59)	(1.45)	(0.864)	(5.84)

TABLE 3 - MARKING AND DESIGN CHARACTERISTICS

BIN CODE	COLOR BANDS			CONTACT CAVITY SIZE	TYPE	CLASS
	1ST	2ND	3RD			
204	RED	BLACK	YELLOW	12	D	A
205	RED	BLACK	GREEN	12		
206	RED	BLACK	BLUE	12		

TABLE 4 - TOOL REQUIREMENTS

BIN CODE	INNER CONTACT		SHIELD CRIMP SLEEVE		INSTALLING TOOL	REMOVAL TOOL
	BASIC CRIMPING TOOL	POSITIONER	BASIC CRIMPING TOOL	DIES		
204	M22520/2-01	M22520/2-32	M22520/5-01	M22520/5-10	M81969/17-05	M81969/19-09
205	M22520/2-01	M22520/2-32	N/A	N/A	M81969/17-05	M81969/19-09
206	M22520/2-01	M22520/2-32	M22520/5-01	M22520/5-10	M81969/17-05	M81969/19-09

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TABLE 5 - PART NUMBERS

AS39029 PART NUMBER	BIN CODE	SUPERSEDED PART NUMBER(S)
M39029/25-204	204	M39029/25-01
M39029/25-205	205	M39029/25-02
M39029/25-206	206	M39029/25-03

TABLE 6 - DIMENSIONS (METRIC EQUIVALENTS) - CONTACT ENGAGEMENT AND SEPARATION FORCES

TEST PIN DIAMETER (INCHES)	SOCKET CONTACT ONLY					
	INITIAL			AFTER CONDITIONING		
	MINIMUM SEPARATION FORCE (OZ)	MAXIMUM AVERAGE ENGAGEMENT FORCE (OZ)	MAXIMUM ENGAGEMENT FORCE (OZ)	MINIMUM SEPARATION FORCE (OZ)	MAXIMUM AVERAGE ENGAGEMENT FORCE (OZ)	MAXIMUM ENGAGEMENT FORCE (OZ)
.0280 +.0002 -.0000	N/A	N/A	16	N/A	N/A	20
.0270 +.0000 -.0002	.5	N/A	N/A	.4	N/A	N/A

TABLE 7 - CONTACT TENSILE STRENGTH (INNER AND OUTER CRIMP JOINT)

BIN CODE	CABLE ACCOMMODATION	AXIAL LOAD (POUND MINIMUM)	
		INNER CONTACT	OUTER CONTACT
204	M17/119-RG174 1/	15	15
	M17/94-RG179	3.5	15
	M17/113-RG316	10	10
205	M17/93-RG178	3.5	10
206 3/	2/		

- 1/ NOT RECOMMENDED FOR USE. THE MAXIMUM OPERATING TEMPERATURE OF THE RG174 CABLE IS 85° +3°/-0°C
- 2/ NO KNOWN STANDARD CABLE IS AVAILABLE FOR THIS BIN CODE TO REPLACE THE PREVIOUSLY RECOMMENDED COMMERCIAL CABLE OR THE CABLES ARE NO LONGER MANUFACTURED. STANDARD TOOLS MAY NOT APPLY. FOLLOW CONTACT SUPPLIERS INSTRUCTIONS.
- 3/ NOT RECOMMENDED FOR USE.

TABLE 8 - CONTACT RESISTANCE

BIN CODE	CONTACT	CABLE ACCOMMODATED	TEST CURRENT (AMPERES)	MAXIMUM VOLTAGE DROP (MILLIVOLTS)					
				25 °C +3 °C, -0 °C		25 °C +3 °C, -0 °C		150 °C +3 °C, -0 °C	
						AFTER CONDITIONING			
				MAX	MAX. AVG.	MAX	MAX. AVG.	MAX	MAX.
204	INNER OUTER	M17/119-RG174 <u>1</u> /	1 12	55 85	N/A	66 102	N/A	88 136	N/A
	INNER OUTER	M17/94-RG179	1 12	120 70		144 84		192 112	
	INNER OUTER	M17/113-RG316	1 12	55 75		66 90		88 120	
205	INNER OUTER	M17/93-RG178	1 12	120 110		144 132		192 176	
206 <u>3</u> /	INNER OUTER	<u>2</u> /	1 12	10 60		12 72		16 96	

1/ NOT RECOMMENDED FOR USE. THE MAXIMUM OPERATING TEMPERATURE OF THE RG174 CABLE IS 85° +3°/-0°C

2/ NO KNOWN STANDARD CABLE IS AVAILABLE FOR THIS BIN CODE TO REPLACE THE PREVIOUSLY RECOMMENDED COMMERCIAL CABLE OR THE CABLES ARE NO LONGER MANUFACTURED. STANDARD TOOLS MAY NOT APPLY. FOLLOW CONTACT SUPPLIERS INSTRUCTIONS.

3/ NOT RECOMMENDED FOR USE.

TABLE 9 - LOW SIGNAL CONTACT RESISTANCE (INTER CONTACT ONLY)

BIN CODE	CABLE ACCOMMODATION	MAXIMUM CONTACT RESISTANCE (MILLIOHMS)	
		INITIAL	AFTER CONDITIONING
204	M17/119-RG174 <u>1/</u>	55	66
	M17/94-RG179	120	144
	M17/113-RG316	55	66
205	M17/93-RG178	120	144
206 <u>3/</u>	<u>2/</u>	10	12

1/ NOT RECOMMENDED FOR USE. THE MAXIMUM OPERATING TEMPERATURE OF THE RG174 CABLE IS 85° +3°/-0°C

2/ NO KNOWN STANDARD CABLE IS AVAILABLE FOR THIS BIN CODE TO REPLACE THE PREVIOUSLY RECOMMENDED COMMERCIAL CABLE OR THE CABLES ARE NO LONGER MANUFACTURED. STANDARD TOOLS MAY NOT APPLY. FOLLOW CONTACT SUPPLIERS INSTRUCTIONS.

3/ NOT RECOMMENDED FOR USE.

TABLE 10 - DIELECTRIC WITHSTAND VOLTAGE (BETWEEN INNER AND OUTER CONTACT)

ALTITUDE (FEET)	TEST VOLTAGE (AC RMS)
SEA LEVEL	1000
50 000	250



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