

AS7928/11

FEDERAL SUPPLY CLASS
5940

RATIONALE

TIN WHISKER RESISTANT TERMINALS ARE REQUIRED FOR SENSITIVE LOW SIGNAL AND SPACE APPLICATIONS.

NOTICE

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF: SAE AS7928.

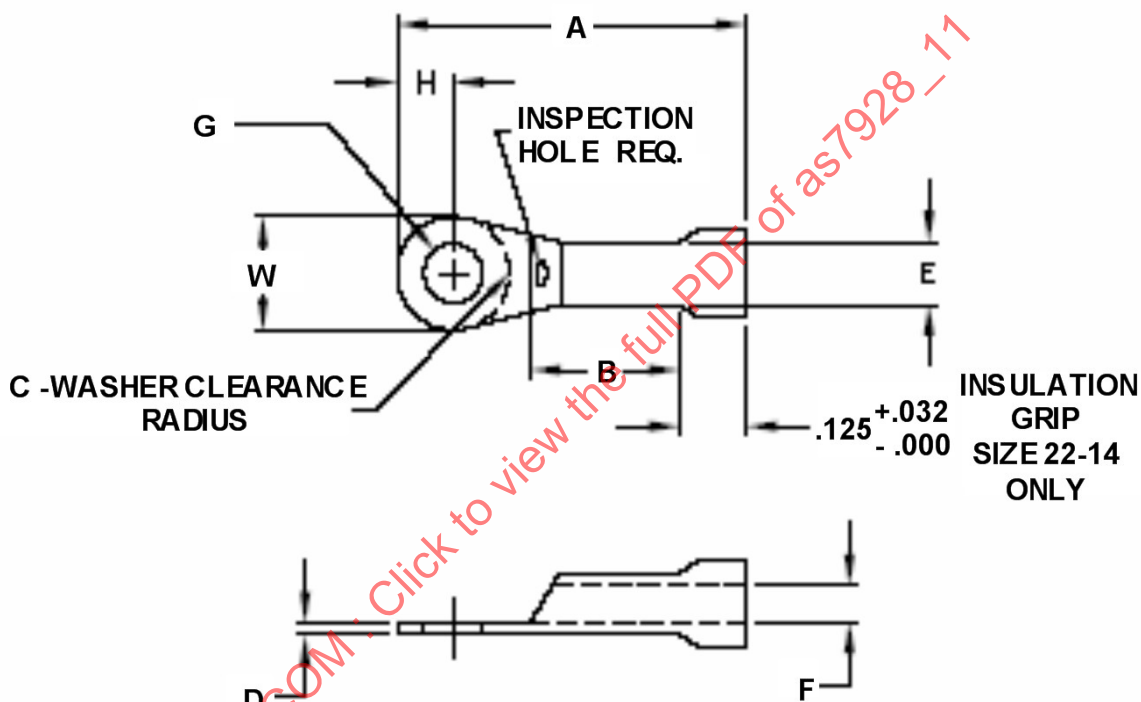
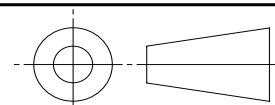


FIGURE 1 - INSULATION GRIP AND TERMINAL

THIRD ANGLE PROJECTION



CUSTODIAN: SAE AE-8/AE-8C2

PROCUREMENT SPECIFICATION: AS7928

SAE Aerospace
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AEROSPACE STANDARD

TERMINAL, LUG, CRIMP STYLE, COPPER, UNINSULATED,
RING TONGUE, TIN WHISKER RESISTANT, TYPE I,
CLASS I, FOR 175 °C TOTAL CONDUCTOR TEMPERATURE

AS7928/11
SHEET 1 OF 6

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ISSUED 2007-08

TABLE 1 - DIMENSIONS

DASH NO.	WIRE SIZE	STUD SIZE	A MAX	B MIN	C MIN RADIUS	D		E DIA	F DIA	G DIA		J DIA MIN	W	
						MAX	MIN			MAX	MIN		MAX	MIN
167	22-18	2 (.086)	.890	.250	.115	.045	.023	.140 .115	.073 .052	.098	.090	.120	.260	.178
138		4 (.112)	.890		.125					.122	.114		.260	.178
101		6 (.138)	.890		.125					.152	.142		.260	.210
102		10 (.190)	.968		.172					.203	.193		.320	.305
161		5/16 (.312)	1.187		.284					.338	.323		.540	.450
125		3/8 (.375)	1.308		.328					.400	.385		.540	.520
162		1/2 (.500)	1.530		.378					.525	.510		.733	.703
139	16-14	4 (.112)	.947	.250	.125	.053	.029	.162 .145	.095 .081	.122	.114	.153	.266	.234
103		6 (.138)	.955		.172					.152	.142		.327	.297
126		6 (.138)	.947		.125					.152	.142		.266	.234
104		10 (.190)	.955		.172					.203	.193		.327	.234
163		5/16 (.312)	1.249		.284					.338	.323		.540	.450
127		3/8 (.375)	1.290		.328					.400	.385		.540	.520
164		1/2 (.500)	1.593		.378					.525	.510		.733	.703
165	12-10	6 (.138)	.955	.250	.202	.080	.037	.230 .210	.139 .129	.152	.142		.317	.290
105		10 (.190)	.969		.172					.203	.193		.391	.365
106		5/16 (.312)	1.156		.296					.338	.323		.547	.485
128		3/8 (.375)	1.172		.328					.400	.385		.598	.536
166		1/2 (.500)	1.718		.378					.525	.510		.733	.703
140	8	8 (.164)	1.150	.315	.234	.084	.038	.272 .260	.186 .176	.178	.168		.429	.386
107		10 (.190)	1.150		.234					.203	.193		.429	.386
141		1/4 (.250)	1.219		.265					.275	.260		.478	.435
108		5/16 (.312)	1.297		.296					.338	.323		.590	.547
129		3/8 (.375)	1.297		.328					.400	.385		.590	.547
142		1/2 (.500)	1.545		.440					.525	.510		.833	.680
130	6	10 (.190)	1.312	.375	.238	.084	.043	.316 .295	.232 .222	.203	.193		.503	.460
109		1/4 (.250)	1.312		.265					.275	.260		.503	.460
131		5/16 (.312)	1.437		.305					.338	.323		.623	.580
110		3/8 (.375)	1.437		.328					.400	.385		.623	.580
143		1/2 (.500)	1.676		.440					.525	.510		.833	.700

TABLE 1 - DIMENSIONS (CONTINUED)

DASH NO.	WIRE SIZE	STUD SIZE	A MAX	B MIN	C MIN RADIUS	D		E DIA	F DIA	G DIA		J DIA MIN	W	
						MAX	MIN			MAX	MIN		MAX	MIN
144	4	10 (.190)	1.400	.437	.276	.096	.047	.380 .365	.290 .280	.203	.193		.203	.193
111		1/4 (.250)	1.400		.276					.275	.260		.275	.260
132		5/16 (.312)	1.489		.308					.338	.323		.338	.323
112		3/8 (.375)	1.489		.328					.400	.385		.400	.385
145		1/2 (.500)	1.721		.440					.525	.510		.525	.510
146	2	10 (.190)	1.732	.505	.343	.109	.054	.473 .450	.365 .355	.203	.193		.711	.668
113		1/4 (.250)								.275	.260		.711	.668
147		5/16 (.312)								.338	.323		.711	.668
114		3/8 (.375)								.400	.385		.711	.668
148		7/16 (.437)	1.895		.453					.463	.448		.804	.740
133		1/2 (.500)	1.895		.453					.525	.510		.804	.740
115	1	1/4 (.250)	1.845	.565	.383	.125	.070	.527 .505	.398 .388	.275	.260		.783	.740
149		5/16 (.312)			.383					.338	.323		.783	.740
116		3/8 (.375)			.383					.400	.385		.783	.740
150		7/16 (.437)	1.980		.453					.463	.448		.887	.740
134		1/2 (.500)	1.980		.453					.525	.510		.887	.740
117	0	1/4 (.250)	2.045	.63	.418	.125	.070	.578 .558	.458 .438	.275	.260		.853	.810
151		5/16 (.312)			.418					.338	.323		.853	.810
118		3/8 (.375)			.418					.400	.385		.853	.810
152		7/16 (.437)	2.092		.453					.463	.448		.903	.860
135		1/2 (.500)	2.092		.453					.525	.510		.903	.860
153	00	1/4 (.250)	2.320	.70	.473	.129	.075	.640 .620	.520 .500	.275	.260		.956	.913
119		5/16 (.312)								.338	.323			
120		3/8 (.375)								.400	.385			
154		7/16 (.437)								.463	.448			
136		1/2 (.500)								.525	.510			

TABLE 1 - DIMENSIONS (CONTINUED)

DASH NO.	WIRE SIZE	STUD SIZE	A MAX	B MIN	C MIN RADIUS	D		E DIA	F DIA	G DIA		J DIA MIN	W	
						MAX	MIN			MAX	MIN		MAX	MIN
155	000	5/16 (.312)	2.455	.718	.513	.140	.085	.714 .690	.577 .557	.338	.323		1.053	1.010
121		3/8 (.375)								.400	.385			
156		7/16 (.437)								.463	.448			
122		1/2 (.500)								.525	.510			
157	0000	5/16 (.312)	2.755	.734	.560	.150	.095	.784 .760	.645 .622	.338	.323		1.148	1.095
123		3/8 (.375)								.400	.385			
158		7/16 (.437)								.463	.448			
124		1/2 (.500)								.525	.510			
159		5/8 (.625)								.666	.651			
160		3/4 (.750)	2.955		.765					.785	.770		1.268	1.200
137		7/8 (.875)	2.971		.765					.910	.895		1.268	1.200

NOTES:

1. DIMENSIONS ARE IN INCHES (SEE TABLE 1).
2. CONTOUR INDICATED BY PHANTOM LINES MAY VARY FROM THAT SHOWN TO SUIT INDIVIDUAL MANUFACTURER'S DESIGNS.

REQUIREMENTS:

1. DIMENSIONS (SEE TABLE 1): H MAX AND MIN DIMENSIONS SHALL BE ONE-HALF OF THE W MAX AND MIN DIMENSIONS, RESPECTIVELY. AVERAGE DIAMETER OF E AND F SHALL BE WITHIN REQUIRED DIMENSIONS AND THE MAX AND MIN DIMENSION VALUES DUE TO OVALIZATION SHALL BE WITHIN 3% OF THE DIMENSION REQUIREMENT.
2. DESIGN: A SPLIT BARREL CONSTRUCTION SHALL BE PERMANENTLY SEALED AND SHALL NOT OPEN AFTER CRIMPING.
3. BASE MATERIAL: COPPER (SEE AS7928 FOR MATERIAL DETAILS) OR COPPER ALLOY. MATERIAL SHALL HAVE ADEQUATE ELECTRICAL CONDUCTIVITY AND SHALL BE SUFFICIENTLY STRONG TO RESIST CRACKING AFTER FORMING AND CRIMPING. COPPER MAY BE GILDING METAL, 95% COPPER AND 5% ZINC.
4. FINISH (WHISKER RESISTANT): TIN PLATED, ASTM-B545, ALLOYED WITH 3% BY WEIGHT, MINIMUM LEAD. PLATING THICKNESS SHALL BE 0.0002 INCHES MINIMUM (SEE AS7928 FOR MORE DETAILS).
5. CRIMPING TOOLS: CRIMPING TOOLS SHALL BE AS SPECIFIED TABLE 2.

TABLE 2 - TERMINAL CRIMPING TOOLS

WIRE SIZE	CRIMP TOOL AND DIE
22-10	M22520/24-01 OR M22520/38-01
8-0000	MS25441-1 AND MS90485-8 THRU -04