

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user." SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

REV. A

AS39029/25

FEDERAL SUPPLY CLASS
5999

RATIONALE

REVISE TO INCLUDE COMMENTS RECEIVED BY THE GOVERNMENT AND INDUSTRY SINCE 1988, INCORPORATES VARIOUS AMENDMENTS, REMOVE GOVERNMENT JARGON AS A RESULT OF THE WORD-FOR-WORD TRANSFERENCE OF AS39029 TO SAE, UPDATE SPECIFICATION REFERENCES, ALIGN SPECIFICATIONS WITH SAE GUIDELINES AS NEEDED, AND REVIEW SPECIFICATIONS FOR KNOWN TECHNICAL PROBLEMS.

NOTICE

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF: SAE AS39029.

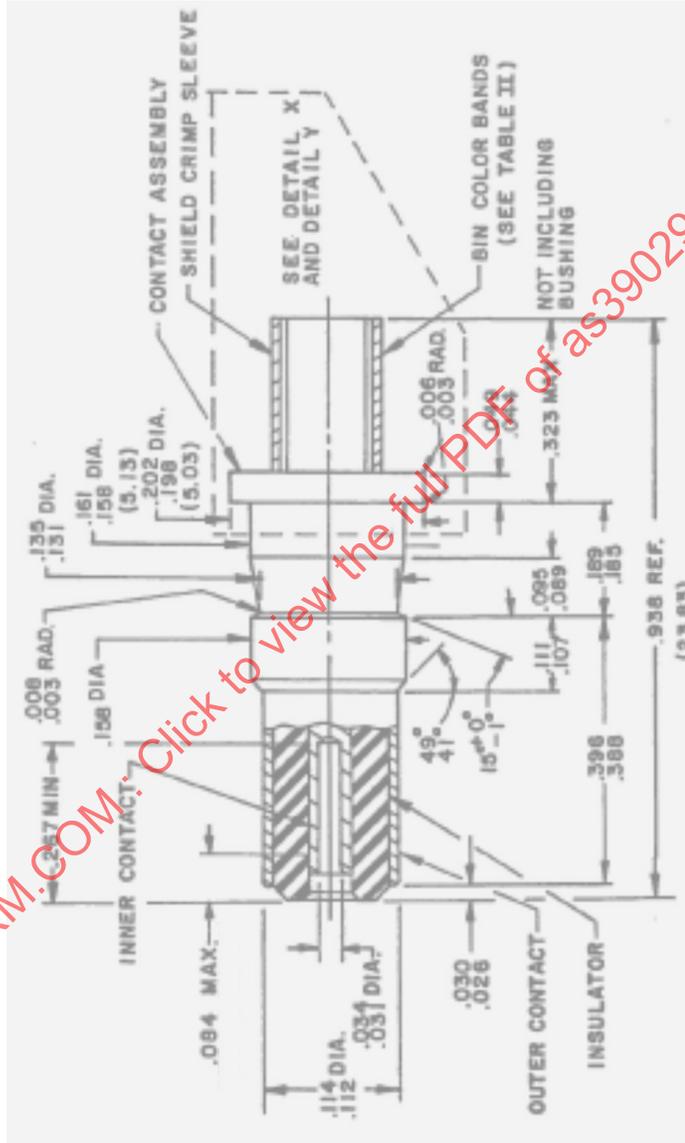
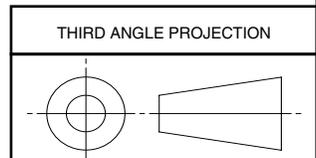


FIGURE 1 - AS39029/25 SHIELDED PIN CONTACT



CUSTODIAN: SAE AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

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

AS39029/25
SHEET 1 OF 6

REV. A

Copyright 2007 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada) Fax: 724-776-0790

Tel: 724-776-4970 (outside USA) Email: CustomerService@sae.org

SAE WEB ADDRESS: <http://www.sae.org>

ISSUED 2001-03 REVISED 2007-07

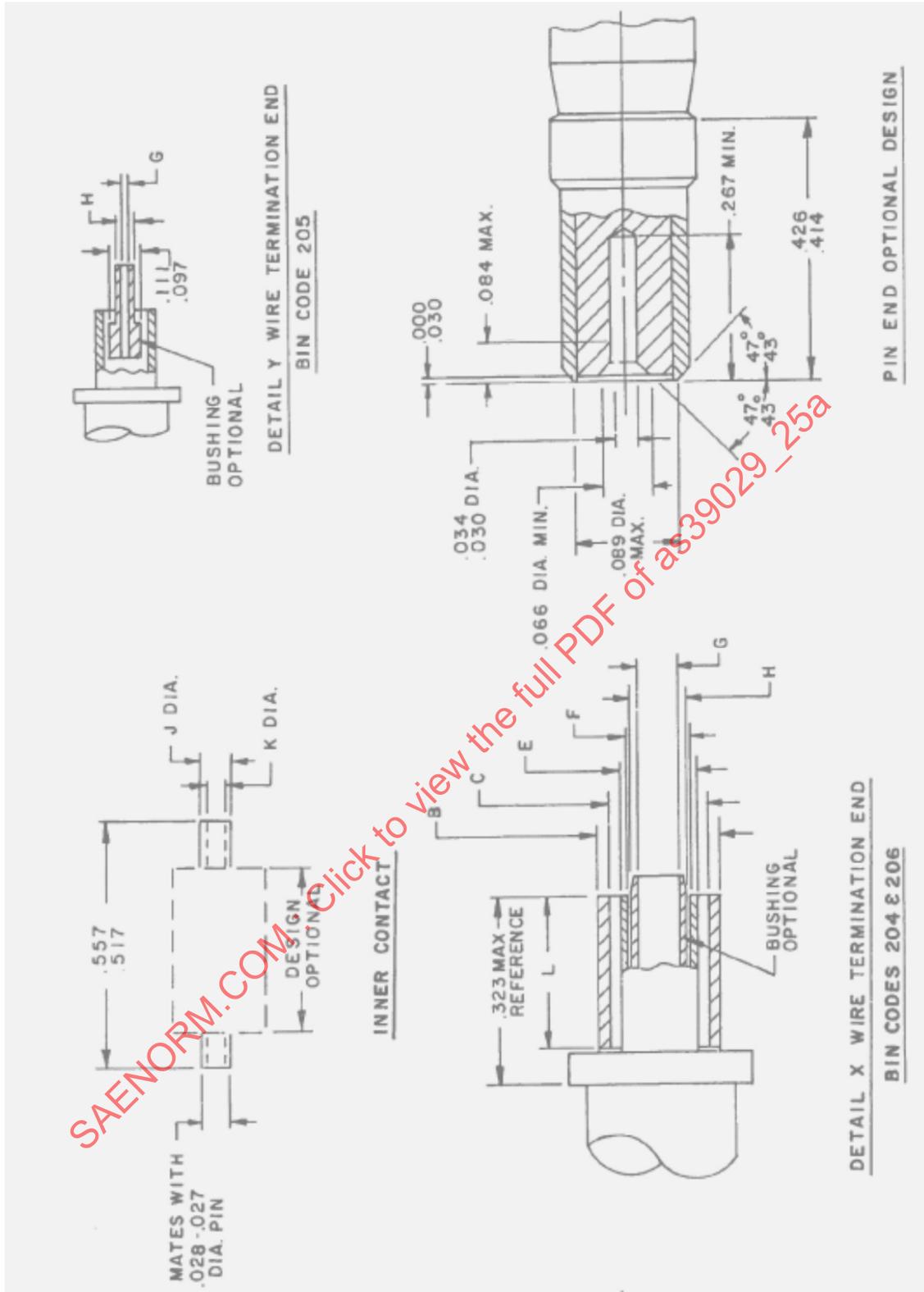


FIGURE 1 - AS39029/25 SHIELDED PIN CONTACT (CONTINUED)

TABLE 1 - 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) | (.76) | (6.86) |
| | .189 | .151 | .126 | .1065 | .065 | .102 | .045 | .020 | .230 |
| 205 | --- | --- | .136 | .1150 | .047 | .076 | .055 | .030 | .330 |
| | | | (3.45) | (2.92) | (1.19) | (1.93) | (1.40) | (.76) | (8.38) |
| | | | .126 | .1065 | .037 | .066 | .045 | .020 | .290 |
| 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) | (2.70) | (1.40) | (2.59) | (1.45) | (.86) | (5.84) |

TABLE 2 - 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 3 - 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 |

TABLE 4 - PART NUMBERS

| AS39029 PART NUMBER | BIN CODE | SUPERSEDES PART NUMBER(S) |
|---------------------|----------|---------------------------|
| M39029/25-204 | 204 | M39029/25-01 |
| M39029/25-206 | 205 | M39029/25-02 |
| M39029/25-207 | 206 | M39029/25-03 |

TABLE 5 - CONTACT ENGAGEMENT AND SEPARATION FORCES

| Test pin diameter (inches) | Socket contact only | | | | | |
|----------------------------|-----------------------------------|---|-----------------------------------|-----------------------------------|---|-----------------------------------|
| | Initial | | | After conditioning | | |
| | Minimum separation force (ounces) | Maximum average engagement force (ounces) | Maximum engagement force (ounces) | Minimum separation force (ounces) | Maximum average engagement force (ounces) | Maximum engagement force (ounces) |
| .0280 +.0002 -.0000 | N/A | N/A | 16 | N/A | N/A | 20 |
| .0270 +.0000 -.0002 | 0.5 | N/A | N/A | 0.4 | N/A | N/A |

TABLE 6 - CONTACT TENSILE STRENGTH (INNER AND OUTER CRIMP JOINT)

| BIN CODE | CABLE ACCOMMODATION | AXIAL LOAD (POUND MINIMUM) | |
|----------|---------------------------------|----------------------------|---------------|
| | | INNER CONTACT | OUTER CONTACT |
| 204 | M17/119-RG174 | 15 | 15 |
| | M17/94-RG179 | 3.5 | 15 |
| | M17/113-RG316 | 10 | 10 |
| 205 | M17/93-RG178 | 3.5 | 10 |
| 206 | NEMA-WC27500 SIZE 22 (SHIELDED) | 15 | 15 |

TABLE 7 - CONTACT RESISTANCE

| BIN code | Contact | accommodated | Test current (amps) | Maximum voltage drop (millivolts) | | | | | |
|----------|---------|------------------------|---------------------|-----------------------------------|---------|--------------|---------|---------------|---------|
| | | | | 25° +3° - 0° | | 25° +3° - 0° | | 150° +3° - 0° | |
| | | | | Max | Max avg | Max | Max avg | Max | Max avg |
| 204 | Inner | M17/119-RG174 | 1 | 55 | N/A | 66 | N/A | 88 | N/A |
| | | | | | | | | | |
| | Inner | M17/94-RG179 | 1 | 120 | | 144 | | 192 | |
| | | | | | | | | | |
| | Inner | M17/113-RG316 | 1 | 55 | | 66 | | 88 | |
| | | | | | | | | | |
| 205 | Inner | M17/93-RG178 | 1 | 120 | | 144 | | 192 | |
| | | | | | | | | | |
| 206 | Inner | No. 22 shield shielded | 1 | 10 | | 12 | | 16 | |
| | | | | | | | | | |