

**Specification Details:**

Specification: MIL-R-93  
 Title: Resistor, Fixed, Wire-Wound (Accurate)  
 Federal Supply Class (FSC): 5905  
 Conventional: Yes  
 Specification contains quality assurance program: No  
 MIL-STD-790 Established Reliability & High Reliability: No  
 MIL-STD-690 Failure Rate Sampling Plans & Procedures: No  
 Weibull Graded: No  
 Specification contains space level reliability requirements: No  
 Specification allows test optimization: No

**Contact Information:**

DSCC Office of Primary Involvement: Passive Devices Team, DSCC-VQP  
 Primary DSCC-VQ Contact: 614-692-0665, e-mail: vqp.go@dla.mil  
 Secondary DSCC-VQ Contact: 614-692-0597, e-mail: vqp.jz@dla.mil

**Notes:**

Effective 22 November 1968, MIL-R-93 has been declared "Inactive for New Design" with no superseding specification. This is applicable on all acquisitions to which MIL-R-93 is applied.

**Part Configuration:**

RB52CE12701D

Style	Characteristic and Terminal	Resistance Temperature Characteristic	Resistance	Resistance Tolerance
RB52	C	E	12701	D

**Part Listings:**

GOVERNMENT DESIGNATION	MANUFACTURER'S DESIGNATION OR TYPE NUMBER	TEST OR QUALIFICATION REFERENCE	SPECIFICATION SHEET	SUPPLIER'S NAME (ADDRESS ON LAST PAGE)
<b>RB52</b>				
Char. C; res. values 0.1 ohms thru 1 megohms; tols. D, F	VA36, VAS36	93-443-66	/10	IRC/TT Electronics
Char. C; res. values 10 ohms thru 1 megohms; tols. B	VA36, VAS36	93-443-66	/10	IRC/TT Electronics
Char. C; res. values 100 ohms thru 1 megohms; tols. A	VA36, VAS36	93-443-66	/10	IRC/TT Electronics
<b>RB53</b>				
Char. C; res. values 0.1 ohms thru 604 kilohms; tols. D, F	VA34	93-443-66	/11	IRC/TT Electronics
Char. C; res. values 10 ohms thru 604 kilohms; tols. B	VA34	93-443-66	/11	IRC/TT Electronics
Char. C; res. values 100 ohms thru 604 kilohms; tols. A	VA34	93-443-66	/11	IRC/TT Electronics
<b>RB54</b>				
Char. C; res. values 0.1 ohms thru 226 kilohms; tols. D, F	VA14, VAS14	93-443-66	/12	IRC/TT Electronics
Char. C; res. values 10 ohms thru 226 kilohms; tols. B	VA14, VAS14	93-443-66	/12	IRC/TT Electronics
Char. C; res. values 100 ohms thru 221 kilohms; tols. A	VA14, VAS14	93-443-66	/12	IRC/TT Electronics
<b>RB55</b>				
Char. C; res. values 0.1 ohms thru 176 kilohms; tols. D, F	VA12, VAS12	93-443-66	/13	IRC/TT Electronics
Char. C; res. values 10 ohms thru 176 kilohms; tols. B	VA12, VAS12	93-443-66	/13	IRC/TT Electronics
Char. C; res. values 100 ohms thru 176 kilohms; tols. A	VA12, VAS12	93-443-66	/13	IRC/TT Electronics
<b>RB56</b>				
Char. C; res. values 0.1 ohms thru 127 kilohms; tols. D, F	VA10, VAS10	93-443-66	/14	IRC/TT Electronics
Char. C; res. values 10 ohms thru 127 kilohms; tols. B	VA10, VAS10	93-443-66	/14	IRC/TT Electronics
Char. C; res. values 100 ohms thru 127 kilohms; tols. A	VA10, VAS10	93-443-66	/14	IRC/TT Electronics
<b>RB70</b>				
Char. C; res. values 10 ohms thru 301 kilohms; tols. B, D, F	4065	93-56-90	/19	IRC/TT Electronics
Char. C; res. values 100 ohms thru 301 kilohms; tols. A	4065	93-56-90	/19	IRC/TT Electronics
<b>RB71</b>				
Char. C, W; res. values 0.1 ohms thru 100 kilohms; tols. D, F	PC8	93-873-69	/20	IRC/TT Electronics

GOVERNMENT DESIGNATION	MANUFACTURER'S DESIGNATION OR TYPE NUMBER	TEST OR QUALIFICATION REFERENCE	SPECIFI- CATION SHEET	SUPPLIER'S NAME (ADDRESS ON LAST PAGE)
Char. C, W; res. values 10 ohms thru 100 kilohms; tols. B	PC8	93-873-69	/20	IRC/TT Electronics
Char. C, W; res. values 100 ohms thru 100 kilohms; tols. A	PC8	93-873-69	/20	IRC/TT Electronics

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## Manufacturer and Supplier Location Information

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### Manufacturer: IRC/TT Electronics (CAGE Code: 54294)

Location: P.O. Box 2240, U.S. 70 East, Smithfield, NC 27577, US

Plant Location: Same Address as Manufacturer

#### Distributor Locations:

1. All American, 3007 Douglas Boulevard, Suite 175, Roseville, CA 95661, US
2. All American, 6955 Union Park Center, Suite 110, Midvale, UT 84047, US
3. All American, 9585 Candida Street, San Diego, CA 92126, US
4. All American, 230 Devcon Drive, San Jose, CA 95112, US
5. All American, 6375 Dixie Road, Units 4, 5, 6, Mississauga, Ontario L5T 2E7, Canada
6. All American, 640 Brooker Creek Boulevard, Suite 465, Oldsmar, FL 34677, US
7. All American, 19310 North Creek Parkway South, Suite 109, Bothell, WA 98011, US
8. All American, 26010 Mureau Road, Suite 120, Calabasas, CA 91302, US
9. All American, 14192 Chambers Road, Tustin, CA 92780, US
10. All American, 7575 West 103rd Street, Suite 100, Westminster, CO 80021, US
11. All American, 100 Mill Plain Road, Suite 360, Danbury, CT 06811, US
12. All American, 1701 Analog Drive, Richardson, TX 75081, US
13. All American, 26650 Renaissance Parkway, Warrensville Heights, OH 44128, US
14. All American, 1930 N. Thoreau Drive, Suite 200, Schaumburg, IL 60173, US
15. All American, 100 Burt Road, Suite 110, Andover, MA 01810, US
16. All American, 8310 Guilford Road, Suite A, Columbia, MD 21046, US
17. All American, 13809 Research Boulevard, Suite 812, Austin, TX 78750, US
18. All American, 1845 Satellite Boulevard, Suite 850, Duluth, GA 30097, US
19. All American, 20875 Crossroads Circle, Suite 950, Waukesha, WI 53186, US
20. All American, 16115 NW 52nd Avenue, Miami, FL 33014-9317, US
21. All American, 275-B Marcus Boulevard, Hauppauge, NY 11788, US
22. All American, 7201 West 129th Street, Suite 150, Overland Park, KS 66213, US
23. All American, 4940 Corporate Drive, Suite D, Huntsville, AL 35805, US
24. All American, Carretera Base Area #5850 Km. Module 8, Colonia La Mora, Zapopan 45100, Japan
25. All American, 48376 Milmont Drive, Fremont, CA 94538, US
26. All American, 4631 Johnson Road, Suite 8, Coconut Creek, FL 33073, US
27. All American, 39201 Schoolcraft Road, Suite B-20, Livonia, MI 48150, US
28. All American, 333 Metro Park, Rochester, NY 14623, US
29. All American, 1121 Situs Court, Suite 370, Raleigh, NC 27606, US
30. All American, 14976 NW Greenbrier Parkway, Beaverton, OR 97006, US
31. All American, 1900 W. University Drive, Suite 230, Tempe, AZ 85281, US
32. All American, 8 East Stow Road, Suite 100, Marlton, NJ 08053, US
33. All American, 528 S. North Lake Boulevard, Suite 1040, Altamonte Springs, FL 32701, US
34. All American, 10805 Holde Street, Suite 100, Cypress, CA 90630, US
35. All American, 7800 Equitable Drive, Suite 150, Eden Prairie, MN 55344, US
36. Arrow Electronics Components, 2552 West Erie Drive, Suite 101, Tempe, AZ 85282, US
37. Arrow Electronics Components, 3245 Old Frankstown Road, Pittsburgh, PA 15239-2909, US
38. Arrow Electronics Components, 9500 SW Nimbus Avenue, Building E, Beaverton, OR 97008-7184, US
39. Arrow Electronics Components, 200 Perimeter Park Drive, Suite D, Morrisville, NC 27560-9752, US
40. Arrow Electronics Components, 2165 Brighton-Henrietta Townline Road, Rochester, NY 14623-2898, US
41. Arrow Electronics Components, 3300 Douglas Boulevard, Suite 105, Roseville, CA 95661, US
42. Arrow Electronics Components, 12111 East 51st Street, Suite 101, Tulsa, OK 74146-6005, US
43. Arrow Electronics Components, 8521 Commerce Court, Burnaby, British Columbia V5A 4N3, Canada
44. Arrow Electronics Components, 2151 32nd Street NE, Unit D, Calgary, Alberta T1Y 7G3, Canada
45. Arrow Electronics Components, 150 North Patrick Boulevard, Suite 200, Brookfield, WI 53045, US
46. Arrow Electronics Components, 2380 Schuetz Road, St. Louis, MO 63146-3412, US
47. Arrow Electronics Components, 2440 South 1070 West, Suite A, Salt Lake City, UT 8419-1554, US
48. Arrow Electronics Components, 9173 Sky Park Court, San Diego, CA 92123, US
49. Arrow Electronics Components, 3000 Bowers Avenue, Santa Clara, CA 95051, US
50. Arrow Electronics Components, 3310 146th Place SE, Building B, Suite A, Bellevue, WA 98007-6471, US
51. Arrow Electronics Components, 13800 NW 14th Street, Suite 160, Sunrise, FL 33323, US
52. Arrow Electronics Components, 7677 Paragon Road, Suite A, Dayton, OH 45459, US
53. Arrow Electronics Components, 6340 International Parkway, Suite 100, Plano, TX 75093, US
54. Arrow Electronics Components, 860 North Main Street Ext., Wallingford, CT 06492-2419, US
55. Arrow Electronics Components, 30600 Aurora Road, Building B, Suite 180, Solon, OH 44139, US
56. Arrow Electronics Components, 116 Spring Lake Drive, Itasca, IL 60143-2062, US
57. Arrow Electronics Components, 35 Upton Drive, Wilmington, MA 01887-1073, US
58. Arrow Electronics Components, 9800 Patuxent Woods Drive, Suite J, Columbia, MD 21046-1587, US
59. Arrow Electronics Components, 9233 Waterford Centre Boulevard, Austin, TX 78758, US
60. Arrow Electronics Components, 1855 Satellite Boulevard, Suite 600, Duluth, GA 30097, CA
61. Arrow Electronics Components, 355 Business Center Drive, Horsham, PA 19044, US
62. Arrow Electronics Components, Foothill Corporate Plaza, 27121 Towne Centre Drive, Suite 100, Foothill Ranch, CA 92610-2807, US
63. Arrow Electronics Components, 55 Skyline Drive, Suite 2500, Lake Mary, FL 32746, US
64. Arrow Electronics Components, 220 Rabro Drive East, Hauppauge, NY 11788, US
65. Arrow Electronics Components, 100 South Jefferson Road, Whippany, NJ 07981-1027, US
66. Arrow Electronics Components, 7629 Anagram Drive, Eden Prairie, MN 55344, US
67. Arrow Electronics Components, 44760 Helm Street, Plymouth, MI 48170-6019, US
68. Arrow Electronics Components, 20935 Warner Center Lane, Woodland Hills, CA 91367, US

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## Manufacturer and Supplier Location Information

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- te A, Salt Lake City, UT 8419-1554, US
70. Arrow Electronics Components, 3300 Douglas Boulevard, Suite 105, Roseville, CA 95661, US
  71. Arrow Electronics Components, 2165 Brighton-Henrietta Townline Road, Rochester, NY 14623-2898, US
  72. Arrow Electronics Components, 2151 32nd Street NE, Unit D, Calgary, Alberta T1Y 7G3, Canada
  73. Arrow Electronics Components, 8521 Commerce Court, Burnaby, British Columbia V5A 4N3, Canada
  74. Arrow Electronics Components, 150 North Patrick Boulevard, Suite 200, Brookfield, WI 53045, US
  75. Arrow Electronics Components, 84 Hines Road, Suite 100, Kanata, Ontario K2K 3G3, Canada
  76. Arrow Electronics Components, 171 Superior Boulevard, Mississauga, Ontario L5T 2L6, Canada
  77. Future Electronics, 26570 West Agoura Road, Suite 100, Calabasas, CA 91302, US
  78. Future Electronics, 18882 Lake Drive East, Chanhassen, MN 55317, US
  79. Future Electronics, 59 Skyline Drive, Suite 1000, Lake Mary, FL 32746, US
  80. Future Electronics, 5000 Stonewood Drive, Suite 200, Wexford, PA 15090, US
  81. Future Electronics, 4400 River Green arkway, Suite 220, Duluth, GA 30096, US
  82. Future Electronics, Westgate Office Center, 700 West Johnson Avenue, Cheshire, CT 06410, US
  83. Future Electronics, 251 Salina Meadows Parkway, Suite 210, Syracuse, NY 13212, US
  84. Future Electronics, Creekview Building, 3350 Monte Villa Parkway, Suite 210, Bothell, WA 98021, US
  85. Future Electronics, 6256 Greenwich Drive, Suite 250, San Diego, CA 92122, US
  86. Future Electronics, 1640 Lead Hill Road, Suite 200, Roseville, CA 95661, US
  87. Future Electronics, 5250 Neil Road, Suite 106, Reno, NV 89502, US
  88. Future Electronics, 6650 SW Redwood Lane, Suite 160, Portland, OR 97224, US
  89. Future Electronics, 4801 East Washington Street, Suite 225, Phoenix, AZ 85034, US
  90. Future Electronics, 2000 Crawford Place, Suite 900, Mount Laurel, NJ 08054, US
  91. Future Electronics, 175 North Corporate Drive, Suite 150, Brookfield, WI 53045, US
  92. Future Electronics, 41 Main Street, Bolton, MA 01740, US
  93. Future Electronics, 10975 Grandview Drive, Suite 330, Overland Park, KS 66210, US
  94. Future Electronics, 8520 Allison Point Boulevard, Suite 205, Indianapolis, IN 46250, US
  95. Future Electronics, 10333 Richmond Avenue, Suite 970, Houston, TX 77042, US
  96. Future Electronics, Parsippany Place, 959 Route 46 E, Suite 303, Parsippany, NJ 07054, US
  97. Future Electronics, 38800 Country Club Drive, Suite 100, Farmington Hills, MI 48331, US
  98. Future Electronics, 1430 Oak Court, Suite 203, Beavercreek, OH 45430, US
  99. Future Electronics, 6060 Rockside Woods Boulevard, Suite 141, Independence, OH 44131, US
  100. Future Electronics, 2300 Barrington Road, Suite 500, Hoffman Estates, IL 60195, US
  101. Future Electronics, 16740 Birkdale Commons Parkway, Suite 212, Huntersville, NC 28078, US
  102. Future Electronics, 12438 West Bridger Street, Suite 110, Boise, ID 83713, US
  103. Future Electronics, Greystone Plaza, 7200 North MoPac Expressway, Suite 310, Austin, TX 78731, US
  104. Future Electronics, 3033 Express Drive North, Hauppauge, NY 11749, US
  105. Future Electronics, 25-B Technology Drive, Suite 200, Irvine, CA 92618, US
  106. Future Electronics, 4960 Corporate Drive N, Suite 150, Huntsville, AL 35805, US
  107. Future Electronics, 4595 Broadmoor Avenue SE, Suite 280, Grand Rapids, MI 49512, US
  108. Future Electronics, 6500 Boeing Drive, Suite T5, El Paso, TX 79925-1074, US
  109. Future Electronics, 1819 Denver West Drive, Suilding 26, Suite 350, Golden, CO 80401, US
  110. Future Electronics, 2201 West Plano Parkway, Suite 150, Plano, TX 75075, US
  111. Future Electronics, 15950 Bay Vista Drive, Suite 340, Clearwater, FL 33760, US
  112. Future Electronics, 1190 Winterson Road, Suite 180, Linthicum, MD 21090, US
  113. Future Electronics, 690 North McCarthy Boulevard, Suite 200, Milpitas, CA 95035, US
  114. Future Electronics, 655 Caig Road, Suite 240, Creve Coeur, MO 63141, US
  115. Future Electronics, 3450 South Highland Drive, Suite 301, Salt Lake City, UT 84106, US
  116. Future Electronics, 300 Linden Oaks, Rochester, NY 14625, US
  117. Future Electronics, Parker Business Center, 2800 Sumner Boulevard, Suites 154, 160, 166-A, Raleigh, NC 27616, US
  118. Jaco Electronics, 145 Oser Avenue, Hauppauge, NY 11788, US
  119. Justin Electronics Corp., 400 Oser Avenue, #800, Hauppauge, NY 11788, US
  120. LXI, 190 Lime Quarry Road, Suite 205, Madison, AL 35758, US
  121. LXI, 501 Airport North Office Park, Fort Wayne, IN 46825, US
  122. LXI, 400 Fuller Wisser Road, Suite 111, Euless, TX 76039, US
  123. LXI, 100 Airport Drive, Wappingers Falls, NY 12590, US
  124. Mouser Electronics, Inc., 1000 North Main Street, Mansfield, TX 76063, US
  125. Mouser Electronics, Inc., 382 Route 46, Suites 1 & 2, Budd Lake, NJ 07828, US
  126. Mouser Electronics, Inc., 1810 Gillespie Way, Suite 101, El Cajon, CA 92020, US
  127. Newark InOne, 10200 Innovation Drive, Suite 550, Milwaukee, WI 53226-1403, US
  128. Newark InOne, 719 Sawdust Road, Suite 207, Spring, TX 77380, US
  129. Newark InOne, 7500 Viscount Avenue, Suite 292, El Paso, TX 79925-5694, US
  130. Newark InOne, 9041 Executive Park Drive, Suite 702, Knoxville, TN 37923-4622, US
  131. Newark InOne, Penn Center Boulevard, Suite 1, Suite 401, Pittsburgh, PA 15276, US
  132. Newark InOne, 3600 Horizon Drive, Suite 165, Trevoese, PA 19053, US
  133. Newark InOne, 6443 SW Beaverton Hillsdale Highway, Suite 330, Portland, OR 97225-1692, US
  134. Newark InOne, 6400 Rockside Road, Independence, OH 44131, US
  135. Newark InOne, 1400 Commerce Center Drive, Suite E, Franklin, OH 45005, US
  136. Newark InOne, 4250 Veterans Memorial Highway, Suite 301, Holbrook, NY 11741, US
  137. Newark InOne, 2601 Crossroads Drive, Suite 100, Madison, WI 53718-7923, US
  138. Newark InOne, 1504 Santa Rosa Road, Suite 115, Richmond, VA 23229-1504, US
  139. Newark InOne, 1200 Placid Avenue, Suite 300, Plano, TX 75074, US
  140. Newark InOne, 7449 Morgan Road, 1st Floor, Liverpool, NY 13090-3901, US
  141. Newark InOne, 197 Highway 18 South, Suite 205, East Brunswick, NJ 08816-1440, US
  142. Newark InOne, 11128 John Galt Boulevard, Suite 550, Omaha, NE 68137-2321, US
  143. Newark InOne, 1701 Pinecroft Road, Suite 101, Greensboro, NC 27407-3855, US

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## Manufacturer and Supplier Location Information

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ne, 65 Boston Post Road West, Marlborough, MA 01752-1854, US  
145. Newark InOne, 7272 Park Circle Drive, Suite 260, Hanover, MD 21076-1306, US  
146. Newark InOne, 6811 West 63rd Street, Suite 305, Overland Park, KS 66202-4080, US  
147. Newark InOne, 11555 North Meridian, Suite 520, Carmel, IN 46032, US  
148. Newark InOne, 1919 South Highland Avenue, Suite A320, Lombard, IL 60148-6119, US  
149. Newark InOne, 22 Technology Park, Suite 250, Norcross, GA 33092-3053, US  
150. Newark InOne, 3230 West Commercial Boulevard, Suite 300, Fort Lauderdale, FL 33309-3400, US  
151. Newark InOne, 1080 Woodcock Road, Suite 111, Orlando, FL 32803-3514, US  
152. Newark InOne, 34 Jerome Avenue, Suite 200, Bloomfield, CT 06002-2463, US  
153. Newark InOne, 4250 Veterans Memorial Highway, Suite 301, Holbrook, NY 11741, US  
154. Newark InOne, 7449 Morgan Road, 1st Floor, Liverpool, NY 13090-3901, US  
155. Newark InOne, 197 Highway 18 South, Suite 205, East Brunswick, NJ 08816-1440, US  
156. Newark InOne, 11128 John Galt Boulevard, Suite 550, Omaha, NE 68137-2321, US  
157. Newark InOne, 1701 Pinecroft Road, Suite 101, Greensboro, NC 27407-3855, US  
158. Newark InOne, 2458 Old Dorsett Road, Suite 205, Maryland Heights, MO 63043, US  
159. Newark InOne, 2021 East Hennepin Avenue, Suite 530, Minneapolis, MN 55413-2722, US  
160. Newark InOne, 5750 New King Street, Troy, MI 48098, US  
161. Newark InOne, 59 Composite Way, Suite 200, Boston, MA 01851-5150, US  
162. Newark InOne, 550 St. Charles Drive, Suite 200, Thousand Oaks, CA 91360-5828, US  
163. Newark InOne, 3600 West Bayshore Road, Suite 104, Palo Alto, CA 94303-4229, US  
164. Newark InOne, 12631-FE Imperial Highway, Building F136, Santa Fe Springs, CA 90670-4710, US  
165. TTI, 1 Executive Drive, Suite 9, Moorestown, NJ 08057, US  
166. TTI, 921 South 2nd Street, Ronkonkoma, NY 11779, US  
167. TTI, 4805 Green Road, Suite 120, Raleigh, NC 27616, US  
168. TTI, 4625 South Wender Drive, Suite 108, Tempe, AZ 85282, US  
169. TTI, 1570 Brookhollow, Suite 103, Santa Ana, CA 92705, US  
170. TTI, Three Highwood Drive, Tewksbury, MA 01876-1194, US  
171. TTI, 1435 Plum Grove Road, Suite D, Shaumburg, IL 60173, US  
172. TTI, 5774 South Semoran Boulevard, Orlando, FL 32822, US  
173. TTI, 8 Fairfield Boulevard, Wallingford, CT 06492, US  
174. TTI, 8501 Turnpike Drive, Suite 100, Westminster, CO 80031, US  
175. TTI, 11121 Willows Road NE, Suite 130, Richmond, WA 98052, US  
176. TTI, 10625 Richmond Avenue, Suite 100, Houston, TX 77042, US  
177. TTI, 4425 West Airport Freeway, #200, Irving, TX 75062, US  
178. TTI, 7185 SW Sandburg Road, Suite 202, Tigard, OR 97223, US  
179. TTI, 10925 Valley View Road, Suite 100, Eden Prairie, MN 55344, US  
180. TTI, 6304 Woodside Court, Suite 115, Columbia, MD 21046, US  
181. TTI, 13220 Evening Creek Drive South, Suite 101, San Diego, CA 92128, US  
182. TTI, 48371 Fremont Boulevard, Suite 107, Fremont, CA 94538, US  
183. TTI, 6611 Auburn Road, Suite A, Folsom, CA 95630, US  
184. TTI, 9121 Oakdale Avenue, Suite 200, Chatsworth, CA 91311, US  
185. TTI, 150 West Park Loop, Suite 201, Huntsville, AL 35809, US  
186. TTI, 5410 Transportation Boulevard, Suite 1, Cleveland, OH 44125, US  
187. TTI, 10564 Success Lane, Suite B, Dayton, OH 45458, US