

| TYPE    | MATERIAL | POLARITY | REPLACE-<br>MENT | PAGE<br>NUMBER | USE | MAXIMUM RATINGS          |                      |                            |                              |           |                                  | ELECTRICAL CHARACTERISTICS |                                       |         |                 |           |                         |           |       |  |      |      |      |      |      |      |   |
|---------|----------|----------|------------------|----------------|-----|--------------------------|----------------------|----------------------------|------------------------------|-----------|----------------------------------|----------------------------|---------------------------------------|---------|-----------------|-----------|-------------------------|-----------|-------|--|------|------|------|------|------|------|---|
|         |          |          |                  |                |     | P <sub>D</sub><br>@ 25°C | T <sub>J</sub><br>°C | V <sub>CB</sub><br>(volts) | V <sub>CE--</sub><br>(volts) | Subscript | h <sub>FE</sub> @ I <sub>C</sub> |                            | V <sub>CE(SAT)</sub> @ I <sub>C</sub> |         | h <sub>FE</sub> | Subscript | f <sub>T</sub><br>Units | Subscript |       |  |      |      |      |      |      |      |   |
|         |          |          |                  |                |     |                          |                      |                            |                              |           | (min)                            | (max)                      | Units                                 | (volts) |                 |           |                         |           | Units |  |      |      |      |      |      |      |   |
| 2N992   | G        | P        |                  |                | RFC | 67M                      | A                    | 75                         | 20                           | 20        | R                                | 40                         |                                       | 1.0M    |                 | 40        | E                       |           |       |  |      |      |      |      |      |      |   |
| 2N993   | G        | P        |                  |                | RFC | 67M                      | A                    | 75                         | 20                           | 20        | R                                | 40                         |                                       | 1.0M    |                 | 40        | E                       |           |       |  |      |      |      |      |      |      |   |
| 2N994   | G        | P        |                  |                | HSS | 200M                     | A                    | 150                        | 15                           | 6.0       | O                                | 45                         | 140                                   | 10M     | 0.18            | 10M       |                         |           |       |  |      |      |      |      |      |      |   |
| 2N995   | S        | P        |                  |                | RFA | 360M                     | A                    | 200                        | 20                           | 15        | O                                | 35                         | 140                                   | 20M     | 0.2             | 20M       |                         |           |       |  | 100M | T    |      |      |      |      |   |
| 2N995A  | S        | P        | 2N3250           | 8-61           | RFA | 360M                     | A                    | 200                        | 20                           | 15        | O                                | 35                         | 140                                   | 20M     | 0.2             | 20M       |                         |           |       |  | 100M | T    |      |      |      |      |   |
| 2N996   | S        | P        | 2N3248           | 8-208          | RFA | 360M                     | A                    | 200                        | 15                           | 12        | O                                | 35                         |                                       | 20M     | 0.3             | 60M       |                         |           |       |  | 100M | T    |      |      |      |      |   |
| 2N997   | S        | N        |                  | 8-204          | AFA | 500M                     | A                    | 175                        | 75                           | 40        | O                                | 35                         |                                       | 100*    | 1.6             | 50M       |                         |           |       |  | 100M | T    |      |      |      |      |   |
| 2N998   | S        | N        |                  |                | SPP | 500M                     | A                    | 200                        | 100                          | 60        | O                                |                            |                                       |         | 1.2             | 50M       | 1000                    | E         |       |  |      |      |      |      |      |      |   |
| 2N999   | S        | N        |                  |                | SPP | 500M                     | A                    | 200                        | 60                           | 60        | O                                |                            |                                       |         | 1.6             | 100M      |                         |           |       |  |      | 7.0M | E    |      |      |      |   |
| 2N1000  | G        | N        |                  |                | MSA | 150M                     | A                    | 100                        | 40                           | 25        | O                                | 40                         |                                       | 10M     | 0.25            | 100M      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1002  | G        | N        |                  |                | RFA | 120M                     | A                    | 100                        | 35                           | 20        | U                                |                            |                                       |         |                 |           |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1004  | G        | P        |                  |                | WID | 120M                     | A                    | 100                        | 35                           | 20        | U                                |                            |                                       |         |                 |           |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1005  | S        | N        |                  |                | AFA | 150M                     | A                    | 175                        | 15                           | 15        | O                                | 10                         | 25                                    | 10M     | 0.6             | 10M       |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1006  | S        | N        |                  |                | AFA | 150M                     | A                    | 175                        | 15                           | 15        | O                                | 25                         | 150                                   | 10M     | 0.6             | 10M       |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1007  | G        | P        |                  |                | LPA | 35W                      | C                    | 95                         | 25                           | 20        | O                                | 50                         | 250                                   | 1.0A    | 1.0             | 2.0A      |                         |           |       |  |      | 60K  | T    |      |      |      |   |
| 2N1008  | G        | P        |                  | 6-24           | AFA | 0.3W                     | C                    | 85                         | 20                           | 15        | R                                |                            |                                       |         | 0.25            | 0.1A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1008A | G        | P        |                  | 6-24           | AFA | 0.3W                     | C                    | 85                         | 40                           | 35        | R                                |                            |                                       |         | 0.25            | 0.1A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1008B | G        | P        |                  | 6-24           | AFA | 0.3W                     | C                    | 85                         | 60                           | 55        | R                                |                            |                                       |         | 0.25            | 0.1A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1009  | G        | P        |                  |                | AFA | 0.4W                     | C                    | 85                         | 35                           | 35        | R                                |                            |                                       |         | 0.25            | 0.1A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1010  | G        | N        |                  |                | APC | 20M                      | A                    | 55                         | 10                           | 10        | O                                |                            |                                       |         |                 |           |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1011  | G        | P        |                  | 7-44           | LPA | 35W                      | C                    | 95                         | 80                           | 80        | S                                | 30                         | 75                                    | 3.0A    | 1.5             | 3.0A      | 20                      | E         |       |  |      | 5.0K | E    |      |      |      |   |
| 2N1012  | G        | N        |                  |                | MSA | 150M                     | A                    | 100                        | 40                           | 25        | O                                | 40                         |                                       | 100M    | 0.2             | 100M      |                         |           |       |  |      |      | 3.0M | E    |      |      |   |
| 2N1014  | G        | P        | 2N1552           | 7-67           | LPA | 50M                      | C                    | 100                        | 100                          | 65        | O                                | 20                         | 50                                    | 4.0A    | 0.8             | 4.0A      |                         |           |       |  |      |      | 0.5M | E    |      |      |   |
| 2N1015  | S        | N        | 2N3713           | 7-125          | PMS | 150W                     | C                    | 150                        | 30                           | 30        | V                                | 10                         |                                       | 2.0A    | 1.5             | 2.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1015A | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 60                           | 60        | V                                | 10                         |                                       | 2.0A    | 1.5             | 2.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1015B | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 100                          | 100       | V                                | 10                         |                                       | 2.0A    | 1.5             | 2.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1015C | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 150                          | 150       | V                                | 10                         |                                       | 2.0A    | 1.5             | 2.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1015D | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 200                          | 200       | V                                | 10                         |                                       | 2.0A    | 1.5             | 2.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1015E | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 250                          | 250       | V                                | 10                         |                                       | 2.0A    | 1.5             | 2.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1015F | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 300                          | 300       | V                                | 10                         |                                       | 2.0A    | 1.5             | 2.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1016  | S        | N        | 2N3713           | 7-125          | PMS | 150W                     | C                    | 150                        | 30                           | 30        | V                                | 10                         |                                       | 5.0A    | 2.5             | 5.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1016A | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 60                           | 60        | V                                | 10                         |                                       | 5.0A    | 2.5             | 5.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1016B | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 100                          | 100       | V                                | 10                         |                                       | 5.0A    | 2.5             | 5.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1016C | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 150                          | 150       | V                                | 10                         |                                       | 5.0A    | 2.5             | 5.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1016D | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 200                          | 200       | V                                | 10                         |                                       | 5.0A    | 2.5             | 5.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1016E | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 250                          | 250       | V                                | 10                         |                                       | 5.0A    | 2.5             | 5.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1016F | S        | N        |                  |                | PMS | 150W                     | C                    | 150                        | 300                          | 300       | V                                | 10                         |                                       | 5.0A    | 2.5             | 5.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1017  | G        | P        |                  |                | MSA | 150M                     | C                    | 85                         | 30                           | 10        | O                                | 70                         |                                       | 20M     | 2.6             | 200M      |                         |           |       |  |      |      | 15M  | B    |      |      |   |
| 2N1018  | G        | P        |                  |                | MSS | 200M                     | A                    | 100                        | 30                           | 6.0       | O                                | 70                         |                                       | 70M     | 2.6             | 200M      |                         |           |       |  |      |      | 20M  | B    |      |      |   |
| 2N1021  | G        | P        |                  | 7-46           | LPA | 50W                      | C                    | 95                         | 100                          | 100       | X                                | 23                         | 70                                    | 1.0A    | 1.0             | 5.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1021A | G        | P        | 2N1021           | 7-46           | LPA | 150W                     | C                    | 100                        | 100                          | 30        | O                                | 30                         | 90                                    | 5.0A    | 0.5             | 5.0A      |                         |           |       |  |      |      |      | 200K | T    |      |   |
| 2N1022  | G        | P        |                  |                | LPA | 50W                      | C                    | 95                         | 120                          | 120       | X                                | 23                         | 70                                    | 5.0A    | 1.0             | 5.0A      |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1022A | G        | P        | 2N1022           | 7-46           | LPA | 150W                     | C                    | 100                        | 120                          | 55        | O                                | 30                         | 90                                    | 5.0A    | 0.5             | 5.0A      |                         |           |       |  |      |      |      |      | 200K | T    |   |
| 2N1023  | G        | P        | 2N3323           | 9-71           | RFA | 120M                     | A                    | 100                        | 40                           | 40        | O                                | 20                         | 175                                   | 1.5M    |                 |           |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1024  | S        | P        |                  |                | AFA | 0.25W                    | A                    | 175                        | 18                           | 15        | U                                |                            |                                       |         |                 |           |                         |           |       |  |      |      |      | 1.0M | B    |      |   |
| 2N1025  | S        | P        |                  |                | AFA | 0.25W                    | A                    | 175                        | 40                           | 35        | U                                |                            |                                       |         |                 |           |                         |           |       |  |      |      |      |      | 1.0M | B    |   |
| 2N1026  | S        | P        |                  |                | AFA | 0.25W                    | A                    | 175                        | 40                           | 35        | U                                |                            |                                       |         |                 |           |                         |           |       |  |      |      |      |      | 2.0M | B    |   |
| 2N1027  | S        | P        |                  |                | AFA | 0.25W                    | A                    | 175                        | 18                           | 15        | U                                |                            |                                       |         |                 |           |                         |           |       |  |      |      |      |      | 4.0M | B    |   |
| 2N1028  | S        | P        |                  |                | AFA | 0.25W                    | A                    | 175                        | 12                           | 10        | U                                |                            |                                       |         |                 |           |                         |           |       |  |      |      |      |      | 7.2M | T    |   |
| 2N1029  | G        | P        | 2N1553           | 7-67           | LPA | 90W                      | C                    | 100                        | 50                           | 20        | O                                | 20                         | 60                                    | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1029A | G        | P        | 2N1554           | 7-67           | LPA | 90W                      | C                    | 100                        | 60                           | 30        | O                                | 20                         | 60                                    | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1029B | G        | P        | 2N1555           | 7-67           | LPA | 90W                      | C                    | 100                        | 90                           | 60        | O                                | 20                         | 60                                    | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1029C | G        | P        | 2N1556           | 7-67           | LPA | 90W                      | C                    | 100                        | 100                          | 70        | O                                | 20                         | 60                                    | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1030  | G        | P        | 2N1557           | 7-67           | LPA | 90W                      | C                    | 100                        | 50                           | 20        | O                                | 50                         | 100                                   | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1030A | G        | P        | 2N1558           | 7-67           | LPA | 90W                      | C                    | 100                        | 60                           | 30        | O                                | 50                         | 100                                   | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1030B | G        | P        | 2N1559           | 7-67           | LPA | 90W                      | C                    | 100                        | 90                           | 60        | O                                | 50                         | 100                                   | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1030C | G        | P        | 2N1560           | 7-67           | LPA | 90W                      | C                    | 100                        | 100                          | 70        | O                                | 50                         | 100                                   | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      |      |   |
| 2N1031  | G        | P        | 2N1553           | 7-67           | LPA | 90W                      | C                    | 100                        | 50                           | 30        | S                                | 20                         | 60                                    | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      | 2.0K | E    |   |
| 2N1031A | G        | P        | 2N1554           | 7-67           | LPA | 90W                      | C                    | 100                        | 60                           | 40        | S                                | 20                         | 60                                    | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      | 2.0K | E    |   |
| 2N1031B | G        | P        | 2N1555           | 7-67           | LPA | 90W                      | C                    | 100                        | 90                           | 70        | S                                | 20                         | 60                                    | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      | 2.0K | E    |   |
| 2N1031C | G        | P        | 2N1556           | 7-67           | LPA | 90W                      | C                    | 100                        | 100                          | 80        | S                                | 20                         | 60                                    | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      | 2.0K | E |
| 2N1032  | G        | P        | 2N1557           | 7-67           | LPA | 90W                      | C                    | 100                        | 50                           | 30        | S                                | 50                         | 100                                   | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      | 2.0K | E |
| 2N1032A | G        | P        |                  |                | LPA | 90W                      | C                    | 100                        | 60                           | 40        | S                                | 50                         | 100                                   | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      | 2.0K | E |
| 2N1032B | G        | P        |                  |                | LPA | 90W                      | C                    | 100                        | 90                           | 70        | S                                | 50                         | 100                                   | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      | 2.0K | E |
| 2N1032C | G        | P        |                  |                | LPA | 90W                      | C                    | 100                        | 100                          | 80        | S                                | 50                         | 100                                   | 10A     | 1.0             | 10A       |                         |           |       |  |      |      |      |      |      | 2.0K | E |
| 2N1034  | S        | P        |                  |                | AFA | 250M                     | A                    | 160                        |                              |           |                                  |                            |                                       |         |                 |           |                         |           |       |  |      |      |      |      |      |      |   |