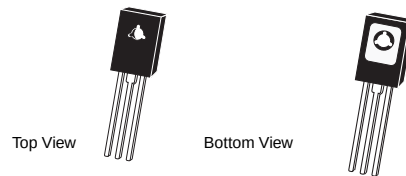


# Power Transistors

TO-126 Case



| TYPE NO. |        | I <sub>C</sub><br>(A) | P <sub>D</sub><br>(W) | BV <sub>CBO</sub><br>(V) | BV <sub>CEO</sub><br>(V) | h <sub>FE</sub> |        | @ I <sub>C</sub><br>(mA) | V <sub>CE(SAT)</sub><br>(V) | @ I <sub>C</sub><br>(A) | f <sub>T</sub><br>(MHz) |
|----------|--------|-----------------------|-----------------------|--------------------------|--------------------------|-----------------|--------|--------------------------|-----------------------------|-------------------------|-------------------------|
| NPN      | PNP    | MAX                   |                       | MIN                      | MIN                      | MIN             | MAX    |                          | MAX                         |                         | MIN                     |
| 2N4921   | 2N4918 | 1.0                   | 30                    | 40                       | 40                       | 30              | 150    | 500                      | 0.6                         | 1.0                     | 3.0                     |
| 2N4922   | 2N4919 | 1.0                   | 30                    | 60                       | 60                       | 30              | 150    | 500                      | 0.6                         | 1.0                     | 3.0                     |
| 2N4923   | 2N4920 | 1.0                   | 30                    | 80                       | 80                       | 30              | 150    | 500                      | 0.6                         | 1.0                     | 3.0                     |
| 2N5190   | 2N5193 | 4.0                   | 40                    | 40                       | 40                       | 25              | 100    | 1,500                    | 0.6                         | 1.5                     | 2.0                     |
| 2N5191   | 2N5194 | 4.0                   | 40                    | 60                       | 60                       | 25              | 100    | 1,500                    | 0.6                         | 1.5                     | 2.0                     |
| 2N5192   | 2N5195 | 4.0                   | 40                    | 80                       | 80                       | 20              | 80     | 1,500                    | 0.6                         | 1.5                     | 2.0                     |
| 2N5655   |        | 0.5                   | 20                    | 275                      | 250                      | 30              | 250    | 100                      | 1.0                         | 0.1                     | 10                      |
| 2N5656   |        | 0.5                   | 20                    | 325                      | 300                      | 30              | 250    | 100                      | 1.0                         | 0.1                     | 10                      |
| 2N5657   |        | 0.5                   | 20                    | 375                      | 350                      | 30              | 250    | 100                      | 1.0                         | 0.1                     | 10                      |
| 2N6037   | 2N6034 | 4.0                   | 40                    | 40                       | 40                       | 750             | 15,000 | 2,000                    | 2.0                         | 2.0                     | 25                      |
| 2N6038   | 2N6035 | 4.0                   | 40                    | 60                       | 60                       | 750             | 15,000 | 2,000                    | 2.0                         | 2.0                     | 25                      |
| 2N6039   | 2N6036 | 4.0                   | 40                    | 80                       | 80                       | 750             | 15,000 | 2,000                    | 2.0                         | 2.0                     | 25                      |
| BD135    | BD136  | 1.5                   | 12.5                  | 45                       | 45                       | 63              | 250    | 150                      | 0.5                         | 0.5                     | --                      |
| BD137    | BD138  | 1.5                   | 12.5                  | 60                       | 60                       | 63              | 250    | 150                      | 0.5                         | 0.5                     | --                      |
| BD139    | BD140  | 1.5                   | 12.5                  | 100                      | 80                       | 63              | 250    | 150                      | 0.5                         | 0.5                     | --                      |
| BD175    | BD176  | 3.0                   | 30                    | 45                       | 45                       | 40              | --     | 150                      | 0.8                         | 1.0                     | 3.0                     |
| BD177    | BD178  | 3.0                   | 30                    | 60                       | 60                       | 40              | --     | 150                      | 0.8                         | 1.0                     | 3.0                     |
| BD179    | BD180  | 3.0                   | 30                    | 80                       | 80                       | 40              | --     | 150                      | 0.8                         | 1.0                     | 3.0                     |
| BD233    | BD234  | 2.0                   | 25                    | 45                       | 45                       | 40              | --     | 150                      | 0.6                         | 1.0                     | 3.0                     |
| BD235    | BD236  | 2.0                   | 25                    | 60                       | 60                       | 40              | --     | 150                      | 0.6                         | 1.0                     | 3.0                     |
| BD237    | BD238  | 2.0                   | 25                    | 80                       | 80                       | 40              | --     | 150                      | 0.6                         | 1.0                     | 3.0                     |
| BD433    | BD434  | 4.0                   | 36                    | 22                       | 22                       | 40              | --     | 10                       | 0.5                         | 2.0                     | 3.0                     |
| BD435    | BD436  | 4.0                   | 36                    | 32                       | 32                       | 40              | --     | 10                       | 0.5                         | 2.0                     | 3.0                     |
| BD437    | BD438  | 4.0                   | 36                    | 45                       | 45                       | 30              | --     | 10                       | 0.6                         | 2.0                     | 3.0                     |
| BD439    | BD440  | 4.0                   | 36                    | 60                       | 60                       | 20              | --     | 10                       | 0.8                         | 2.0                     | 3.0                     |
| BD441    | BD442  | 4.0                   | 36                    | 80                       | 80                       | 15              | --     | 10                       | 0.8                         | 2.0                     | 3.0                     |
| BD675    | BD676  | 4.0                   | 40                    | 45                       | 45                       | 750             | --     | 1.5                      | 2.5                         | 1.5                     | 1.0                     |
| BD675A   | BD676A | 4.0                   | 40                    | 45                       | 45                       | 750             | --     | 2.0                      | 2.8                         | 2.0                     | 1.0                     |
| BD677    | BD678  | 4.0                   | 40                    | 60                       | 60                       | 750             | --     | 1.5                      | 2.5                         | 1.5                     | 1.0                     |
| BD677A   | BD678A | 4.0                   | 40                    | 60                       | 60                       | 750             | --     | 2.0                      | 2.8                         | 2.0                     | 1.0                     |
| BD679    | BD680  | 4.0                   | 40                    | 80                       | 80                       | 750             | --     | 1.5                      | 2.5                         | 1.5                     | 1.0                     |
| BD679A   | BD680A | 4.0                   | 40                    | 80                       | 80                       | 750             | --     | 2.0                      | 2.8                         | 2.0                     | 1.0                     |
| BD681    | BD682  | 4.0                   | 40                    | 100                      | 100                      | 750             | --     | 1.5                      | 2.5                         | 1.5                     | 1.0                     |
| BD683    | BD684  | 4.0                   | 40                    | 120                      | 120                      | 750             | --     | 1.5                      | 2.5                         | 1.5                     | 1.0                     |
| BF469    | BF470  | 0.05                  | 1.25                  | 250                      | 250                      | 50              | --     | 0.025                    | 0.6                         | 0.03                    | 60                      |
| BF471    | BF472  | 0.05                  | 1.25                  | 300                      | 300                      | 50              | --     | 0.025                    | 0.6                         | 0.03                    | 60                      |

Shaded areas indicate Darlington.

(6-December 2004)

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