

# Small Signal Transistors

## TO-39 Case (Continued)



| TYPE NO. | DESCRIPTION      | V <sub>CBO</sub> | V <sub>CEO</sub> | V <sub>EBO</sub> | I <sub>CBO</sub> @<br>V <sub>CB</sub> (V)<br>*I <sub>CEO</sub><br>**I <sub>CES</sub><br>***I <sub>CEV</sub><br>****I <sub>CER</sub> | h <sub>FE</sub> |     | @ I <sub>c</sub> | @ V <sub>CE</sub> | V <sub>CE(SAT)</sub> @ I <sub>c</sub> |      | f <sub>T</sub> | C <sub>ob</sub> | t <sub>on</sub> | t <sub>off</sub> | NF   |     |
|----------|------------------|------------------|------------------|------------------|---|-----------------|-----|------------------|-------------------|---------------------------------------|------|----------------|-----------------|-----------------|------------------|------|-----|
|          |                  | (V)              | (V)              | (V)              |   | (μA)            | (V) | (mA)             | (V)               | (V)                                   | (mA) | (MHz)          | (pF)            | (ns)            | (ns)             | (dB) |     |
|          |                  | MIN              | MIN              | MIN              |   | MIN             | MAX |                  |                   | MAX                                   |      | MIN            | MAX             | MAX             | MAX              | MAX  |     |
| 2N3444   | NPN CORE DRIVER  | 80               | 50               | 5.0              | 0.50  | 60              | 20  | 60               | 500               | 1.0                                   | 1.20 | 1,000          | 150             | 12              | 50               | 70   | --  |
| 2N3467   | PNP CORE DRIVER  | 40               | 40               | 5.0              | 0.10  | 30              | 40  | 120              | 500               | 1.0                                   | 0.30 | 150            | 175             | 25              | 40               | 90   | --  |
| 2N3468   | PNP CORE DRIVER  | 50               | 50               | 5.0              | 0.10  | 30              | 25  | 75               | 500               | 1.0                                   | 0.36 | 150            | 150             | 25              | 40               | 90   | --  |
| 2N3494   | PNP AMPL/SWITCH  | 80               | 80               | 4.5              | 0.10  | 50              | 40  | --               | 10                | 10                                    | 0.30 | 10             | 200             | 7.0             | --               | --   | --  |
| 2N3495   | PNP AMPL/SWITCH  | 120              | 120              | 4.0              | 0.10  | 90              | 40  | --               | 10                | 10                                    | 0.35 | 10             | 150             | 6.0             | --               | --   | --  |
| 2N3498   | NPN AMPL/SWITCH  | 100              | 100              | 6.0              | 0.50  | 50              | 40  | 120              | 150               | 10                                    | 0.60 | 300            | 150             | 10              | --               | --   | --  |
| 2N3499   | NPN AMPL/SWITCH  | 100              | 100              | 6.0              | 0.50  | 50              | 100 | 300              | 150               | 10                                    | 0.60 | 300            | 150             | 10              | --               | --   | --  |
| 2N3500   | NPN HIGH VOLTAGE | 150              | 150              | 6.0              | 0.50  | 75              | 40  | 120              | 150               | 10                                    | 0.40 | 150            | 150             | 8.0             | --               | --   | --  |
| 2N3501   | NPN HIGH VOLTAGE | 150              | 150              | 6.0              | 0.50  | 75              | 100 | 300              | 150               | 10                                    | 0.40 | 150            | 150             | 8.0             | --               | --   | --  |
| 2N3502   | PNP AMPL/SWITCH  | 45               | 45               | 5.0              | 0.01**  | 30              | 100 | 300              | 150               | 10                                    | 0.40 | 150            | 200             | 8.0             | --               | --   | --  |
| 2N3503   | PNP AMPL/SWITCH  | 60               | 60               | 5.0              | 0.01**  | 50              | 100 | 300              | 150               | 10                                    | 0.40 | 150            | 200             | 8.0             | --               | --   | --  |
| 2N3506   | NPN AMPL/SWITCH  | 60               | 40               | 5.0              | --  | --              | 40  | 200              | 1500              | 2.0                                   | 0.5  | 500            | 60              | 40              | --               | --   | --  |
| 2N3507   | NPN AMPL/SWITCH  | 80               | 50               | 5.0              | --  | --              | 30  | 150              | 1500              | 2.0                                   | 0.5  | 500            | 60              | 40              | --               | --   | --  |
| 2N3554   | NPN CORE DRIVER  | 60               | 30               | 5.0              | --  | --              | 25  | 100              | 750               | 10                                    | 0.70 | 750            | 150             | 25              | 50               | 105  | --  |
| 2N3634   | PNP AMPL/SWITCH  | 140              | 140              | 5.0              | 0.10  | 100             | 50  | 150              | 50                | 10                                    | 0.50 | 50             | 150             | 10              | 400              | 600  | 3.0 |
| 2N3635   | PNP AMPL/SWITCH  | 140              | 140              | 5.0              | 0.10  | 100             | 100 | 300              | 50                | 10                                    | 0.50 | 50             | 200             | 10              | 400              | 600  | 3.0 |
| 2N3660   | PNP AMPL/SWITCH  | 40               | 30               | 5.0              | 1.20  | 500             | 25  | 100              | 500               | 10                                    | 1.20 | 500            | 30              | 275             | --               | --   | --  |
| 2N3661   | PNP AMPL/SWITCH  | 60               | 50               | 5.0              | 0.10  | 100             | 25  | 100              | 500               | 10                                    | 1.20 | 500            | 30              | 275             | --               | --   | --  |
| 2N3665   | NPN AMPL/SWITCH  | 120              | 80               | 6.0              | 0.50  | 60              | 40  | 120              | 150               | 10                                    | 0.50 | 150            | 60              | 12              | --               | --   | --  |
| 2N3666   | NPN AMPL/SWITCH  | 120              | 80               | 6.0              | 0.50  | 60              | 100 | 300              | 150               | 10                                    | 0.50 | 150            | 60              | 12              | --               | --   | --  |
| 2N3671   | PNP AMPL/SWITCH  | 60               | 50               | 5.0              | 0.10  | 30              | 75  | 275              | 150               | 10                                    | 0.40 | 150            | 200             | 9.0             | --               | --   | --  |
| 2N3678   | NPN AMPL/SWITCH  | 75               | 55               | 6.0              | 0.10  | 60              | 40  | 120              | 150               | 10                                    | 0.40 | 150            | 250             | 8.0             | --               | --   | --  |
| 2N3719   | PNP AMPL/SWITCH  | 40               | 40               | 4.0              | 10  | 40              | 25  | 180              | 1,000             | 1.5                                   | 0.75 | 1,000          | 60              | 120             | --               | --   | --  |
| 2N3720   | PNP AMPL/SWITCH  | 60               | 60               | 4.0              | 10  | 60              | 25  | 180              | 1,000             | 1.5                                   | 0.75 | 1,000          | 60              | 120             | --               | --   | --  |
| 2N3722   | NPN CORE DRIVER  | 60               | 60               | 6.0              | --  | --              | 40  | 150              | 100               | 5.0                                   | 0.22 | 100            | 300             | 10              | 50               | 100  | --  |
| 2N3724A  | NPN CORE DRIVER  | 50               | 30               | 6.0              | 0.50  | 40              | 60  | 150              | 100               | 1.0                                   | 0.20 | 100            | 300             | 12              | 35               | 60   | --  |
| 2N3725A  | NPN CORE DRIVER  | 80               | 50               | 6.0              | 0.50  | 60              | 60  | 150              | 100               | 1.0                                   | 0.40 | 300            | 300             | 10              | 35               | 60   | --  |
| 2N3734   | NPN CORE DRIVER  | 50               | 30               | 5.0              | --  | --              | 30  | 120              | 1,000             | 1.5                                   | 0.50 | 500            | 300             | 9.0             | 48               | 60   | --  |
| 2N3735   | NPN CORE DRIVER  | 75               | 50               | 5.0              | 0.20  | 40              | 20  | 80               | 1,000             | 1.5                                   | 0.50 | 500            | 250             | 9.0             | 48               | 60   | --  |
| 2N3742   | NPN HIGH VOLTAGE | 300              | 300              | 7.0              | 0.20  | 200             | 20  | 200              | 30                | 10                                    | 1.00 | 30             | 30              | 6.0             | --               | --   | --  |
| 2N3743   | PNP HIGH VOLTAGE | 300              | 300              | 5.0              | 0.30  | 200             | 25  | 250              | 30                | 10                                    | 5.00 | 10             | 30              | 15              | --               | --   | --  |
| 2N3762   | PNP CORE DRIVER  | 40               | 40               | 5.0              | --  | --              | 30  | 100              | 1,000             | 1.5                                   | 0.90 | 1,000          | 180             | 15              | 45               | 105  | --  |
| 2N3763   | PNP CORE DRIVER  | 60               | 60               | 5.0              | --  | --              | 20  | 80               | 1,000             | 1.5                                   | 0.90 | 1,000          | 150             | 15              | 45               | 105  | --  |
| 2N3764   | PNP CORE DRIVER  | 40               | 40               | 5.0              | --  | --              | 30  | 120              | 1,000             | 1.5                                   | 0.50 | 500            | 180             | 15              | 45               | 115  | --  |
| 2N3830   | NPN CORE DRIVER  | 80               | 50               | 5.0              | --  | --              | 30  | --               | 500               | 10                                    | 0.50 | 200            | 200             | 12              | 60               | 70   | --  |
| 2N3831   | NPN CORE DRIVER  | 70               | 40               | 5.0              | --  | --              | 35  | --               | 500               | 10                                    | 0.50 | 500            | 200             | 12              | 60               | 70   | --  |
| 2N3866   | NPN VHF/UHF OSC  | 55               | 30               | 3.5              | 20*   | 28              | 10  | 200              | 50                | 5.0                                   | 1.00 | 100            | 500             | 3.0             | --               | --   | --  |
| 2N3867   | PNP AMPL/SWITCH  | 40               | 40               | 4.0              | 1.00***   | 40              | 40  | 200              | 1,500             | 2.0                                   | 0.75 | 1,500          | 60              | 120             | 100              | 400  | --  |
| 2N3868   | PNP AMPL/SWITCH  | 60               | 60               | 4.0              | 1.00***   | 60              | 30  | 150              | 1,500             | 2.0                                   | 0.75 | 1,500          | 60              | 120             | 100              | 400  | --  |
| 2N3923   | NPN AMPL/SWITCH  | 150              | 150              | 6.0              | 0.01  | 100             | 30  | 120              | 25                | 10                                    | 1.00 | 25             | 40              | 3.5             | --               | --   | --  |
| 2N3945   | NPN AMPL/SWITCH  | 70               | 50               | 6.0              | --  | --              | 40  | 250              | 150               | 10                                    | 0.50 | 150            | 60              | 12              | --               | --   | --  |
| 2N4000   | NPN AMPL/SWITCH  | 100              | 80               | 6.0              | 2.00**  | 90              | 30  | 120              | 500               | 2.0                                   | 0.50 | 1,000          | 40              | 60              | --               | --   | --  |
| 2N4001   | NPN AMPL/SWITCH  | 120              | 100              | 6.0              | 2.00**  | 110             | 40  | 120              | 500               | 2.0                                   | 0.50 | 1,000          | 40              | 60              | --               | --   | --  |