

# Small Signal Transistors

## TO-92 Case (Continued)



| TYPE NO. | DESCRIPTION     | LEAD CODE | V <sub>CB0</sub> | V <sub>CEO</sub>         | V <sub>EBO</sub> | I <sub>CB0</sub> @                            | V <sub>CB</sub> | h <sub>FE</sub> |       | @V <sub>CE</sub> | @I <sub>C</sub> | V <sub>CE(SAT)</sub> @I <sub>C</sub> |       | C <sub>ob</sub>         | f <sub>T</sub> | NF   | t <sub>off</sub> |
|----------|-----------------|-----------|------------------|--------------------------|------------------|-----------------------------------------------|-----------------|-----------------|-------|------------------|-----------------|--------------------------------------|-------|-------------------------|----------------|------|------------------|
|          |                 |           | (V)              | (V)                      | (V)              | (nA)                                          | (V)             | MIN             | MAX   | (V)              | (mA)            | (V)                                  | (mA)  | (pF)                    | (MHz)          | (dB) |                  |
|          |                 |           | MIN              | *V <sub>CES</sub><br>MIN | MIN              | *I <sub>CES</sub><br>*I <sub>CEV</sub><br>MAX |                 |                 |       |                  |                 |                                      |       | *C <sub>rb</sub><br>MAX | *TYP<br>MIN    | MAX  | MAX              |
| PN3641   | NPN AMPL/SWITCH | EBC       | 60               | 30                       | 5.0              | 50*                                           | 50              | 40              | 120   | 10               | 150             | 0.22                                 | 150   | 8.0                     | 150            | --   | 150              |
| PN3642   | NPN AMPL/SWITCH | EBC       | 60               | 45                       | 5.0              | 50*                                           | 50              | 40              | 120   | 10               | 150             | 0.22                                 | 150   | 8.0                     | 150            | --   | 150              |
| PN3643   | NPN AMPL/SWITCH | EBC       | 60               | 30                       | 5.0              | 50*                                           | 50              | 100             | 300   | 10               | 150             | 0.22                                 | 150   | 8.0                     | 250            | --   | 150              |
| PN3644   | PNP AMPL/SWITCH | EBC       | 45               | 45                       | 5.0              | 35*                                           | 30              | 100             | 300   | 10               | 150             | 1.0                                  | 300   | 8.0                     | 200            | --   | 100              |
| PN3645   | PNP AMPL/SWITCH | EBC       | 60               | 60                       | 5.0              | 35*                                           | 50              | 100             | 300   | 10               | 150             | 1.0                                  | 300   | 8.0                     | 200            | --   | 100              |
| PN3646   | NPN SAT SWITCH  | EBC       | 40               | 15                       | 5.0              | 500*                                          | 20              | 30              | 120   | 0.40             | 30              | 0.50                                 | 300   | 5.0                     | 350            | --   | 28               |
| PN3694   | NPN AMPL/SWITCH | EBC       | 45               | 45                       | 4.0              | 50                                            | 30              | 100             | 400   | 10               | 10              | --                                   | --    | 6.0                     | 200            | --   | --               |
| PN4033   | PNP AMPL/SWITCH | EBC       | 80               | 80                       | 5.0              | 50                                            | 60              | 100             | 300   | 5.0              | 100             | 0.5                                  | 500   | 20                      | --             | --   | 50               |
| PN4249   | PNP LOW NOISE   | EBC       | 60               | 60                       | 5.0              | 10                                            | 40              | 100             | 300   | 5.0              | 0.10            | 0.25                                 | 10    | 6.0                     | 40             | 3.0  | --               |
| PN4250A  | PNP LOW NOISE   | EBC       | 60               | 60                       | 5.0              | 10                                            | 50              | 250             | 700   | 5.0              | 0.10            | 0.25                                 | 10    | 6.0                     | 50             | 2.0  | --               |
| PN4258   | PNP SAT SWITCH  | EBC       | 12               | 12                       | 4.5              | 10*                                           | 6.0             | 30              | 120   | 3.0              | 10              | 0.50                                 | 50    | 3.0                     | 700            | --   | 20               |
| PN4274   | NPN SAT SWITCH  | EBC       | 30               | 12                       | 4.5              | 400*                                          | 20              | 35              | 120   | 1.0              | 10              | 0.50                                 | 100   | 4.0                     | 400            | --   | 12               |
| PN4275   | NPN SAT SWITCH  | EBC       | 40               | 15                       | 4.5              | 400*                                          | 20              | 35              | 120   | 1.0              | 10              | 0.50                                 | 100   | 4.0                     | 400            | --   | 12               |
| PN4354   | PNP AMPL/SWITCH | EBC       | 60               | 60                       | 5.0              | 50                                            | 50              | 50              | 500   | 10               | 10              | 0.50                                 | 500   | 30                      | 100            | 3.0  | 400              |
| PN4355   | PNP AMPL/SWITCH | EBC       | 60               | 60                       | 5.0              | 50                                            | 50              | 100             | 400   | 10               | 10              | 1.0                                  | 1,000 | 30                      | 100            | 3.0  | 400              |
| PN4356   | PNP AMPL/SWITCH | EBC       | 80               | 80                       | 5.0              | 50                                            | 50              | 50              | 250   | 10               | 10              | 0.50                                 | 500   | 30                      | 100            | 3.0  | 400              |
| PN4916   | PNP AMPL/SWITCH | EBC       | 30               | 30                       | 5.0              | 25                                            | 15              | 70              | 200   | 1.0              | 10              | 0.30                                 | 50    | 4.5                     | 400            | 4.0  | --               |
| PN4917   | PNP AMPL/SWITCH | EBC       | 30               | 30                       | 5.0              | 25                                            | 15              | 150             | 300   | 1.0              | 10              | 0.30                                 | 50    | 4.5                     | 450            | 4.0  | --               |
| PN5127   | NPN AMPL/SWITCH | EBC       | 20               | 12                       | 3.0              | 50                                            | 10              | 15              | 300   | 10               | 2.0             | 0.30                                 | 10    | 3.5                     | 150            | --   | --               |
| PN5128   | NPN AMPL/SWITCH | EBC       | 15               | 12                       | 3.0              | 50                                            | 10              | 35              | 350   | 10               | 50              | 0.25                                 | 150   | 10                      | 150            | --   | --               |
| PN5129   | NPN AMPL/SWITCH | EBC       | 15               | 12                       | 3.0              | 50                                            | 10              | 35              | 350   | 10               | 50              | 0.25                                 | 150   | 10                      | --             | --   | --               |
| PN5130   | NPN RF OSC      | EBC       | 30               | 12                       | 1.0              | 50                                            | 10              | 15              | 250   | 10               | 8.0             | 0.60                                 | 10    | 1.7                     | --             | 400  | --               |
| PN5131   | NPN AMPL/SWITCH | EBC       | 20               | 15                       | 3.0              | 50                                            | 10              | 30              | 50    | 1.0              | 10              | 1.0                                  | 10    | 6.0                     | 100            | --   | --               |
| PN5132   | NPN AMPL/SWITCH | EBC       | 20               | 20                       | 3.0              | 50                                            | 10              | 30              | 400   | 10               | 10              | 2.0                                  | 10    | 3.5                     | 200            | 4.0  | --               |
| PN5133   | NPN LOW NOISE   | EBC       | 20               | 18                       | 3.0              | 50                                            | 15              | 60              | 1,000 | 5.0              | 1.0             | 0.40                                 | 1.0   | 5.0                     | 40             | --   | --               |
| PN5134   | NPN SAT SWITCH  | EBC       | 20               | 10                       | 3.5              | 10,000                                        | 15              | 20              | 150   | 1.0              | 10              | 0.25                                 | 10    | 4.0                     | --             | --   | 18               |
| PN5135   | NPN AMPL/SWITCH | EBC       | 30               | 25                       | 4.0              | 300                                           | 15              | 50              | 600   | 10               | 10              | 1.0                                  | 100   | 25                      | 40             | --   | --               |
| PN5136   | NPN AMPL/SWITCH | EBC       | 30               | 20                       | 3.0              | 100                                           | 20              | 20              | 400   | 1.0              | 150             | 0.25                                 | 150   | 35                      | 40             | --   | --               |
| PN5137   | NPN AMPL/SWITCH | EBC       | 30               | 20                       | 3.0              | 100                                           | 20              | 20              | 400   | 1.0              | 150             | 0.25                                 | 150   | 35                      | 40             | --   | --               |
| PN5138   | PNP AMPL/SWITCH | EBC       | 30               | 30                       | 5.0              | 50                                            | 20              | 50              | 800   | 10               | 0.10            | 0.30                                 | 10    | 7.0                     | 30             | --   | --               |
| PN5139   | PNP AMPL/SWITCH | EBC       | 20               | 20                       | 5.0              | 50*                                           | 15              | 40              | --    | 1.0              | 10              | 0.50                                 | 50    | 5.0                     | 300            | --   | 200              |
| PN5142   | PNP AMPL/SWITCH | EBC       | 20               | 20                       | 4.0              | 50*                                           | 12              | 30              | --    | 1.0              | 50              | 2.0                                  | 300   | 10                      | --             | --   | 200              |
| PN5143   | PNP AMPL/SWITCH | EBC       | 20               | 20                       | 4.0              | 50*                                           | 12              | 30              | --    | 1.0              | 50              | 2.0                                  | 300   | 10                      | --             | --   | 200              |
| PN5825   | NPN AMPL/SWITCH | EBC       | 50               | 40                       | 5.0              | 50                                            | 40              | 100             | 200   | 5.0              | 2.0             | 0.125                                | 10    | 4.0                     | 90             | --   | --               |
| PN5826   | NPN AMPL/SWITCH | EBC       | 50               | 40                       | 5.0              | 50                                            | 40              | 150             | 300   | 5.0              | 2.0             | 0.125                                | 10    | 4.0                     | 90             | --   | --               |
| PN5827   | NPN AMPL/SWITCH | EBC       | 50               | 40                       | 5.0              | 50                                            | 40              | 250             | 500   | 5.0              | 2.0             | 0.125                                | 10    | 4.0                     | 90             | --   | --               |
| PN5828   | NPN AMPL/SWITCH | EBC       | 50               | 40                       | 5.0              | 50                                            | 40              | 400             | 800   | 5.0              | 2.0             | 0.125                                | 10    | 4.0                     | 90             | --   | --               |
| PN5910   | PNP SAT SWITCH  | EBC       | 20               | 20                       | 4.5              | 10*                                           | 10              | 30              | 120   | 0.30             | 10              | 0.50                                 | 50    | 3.0                     | 700            | --   | 20               |
| PN6010   | NPN AMPL/SWITCH | EBC       | 50               | 40                       | 5.0              | 10                                            | 25              | 100             | 300   | 1.0              | 10              | 0.50                                 | 500   | 10                      | 105            | 5.0  | 400              |

Devices are available lead formed.  
See pages 216 thru 219 for details.  
Also available in Ammopack or Tape & Reel,  
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