

# Small Signal Transistors

## TO-92 Case (Continued)



| TYPE NO. | DESCRIPTION     | LEAD CODE | V <sub>CBO</sub> | V <sub>CEO</sub>                | V <sub>EBO</sub> | I <sub>CBO</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)<br>MIN       | (V)<br>*V <sub>CES</sub><br>MIN | (V)<br>MAX       | (nA)<br>*I <sub>CES</sub><br>*I <sub>CEV</sub><br>MAX |                 | MIN             | *h <sub>FE</sub><br>(1kHz)<br>MAX | (V)              | (mA)            | (V)                                  | (mA)  | (pF)<br>*C <sub>rb</sub><br>MAX | (MHz)<br>*TYP<br>MIN | (dB)<br>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                  | --          | --               |
| 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                             | 250                  | --          | 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.  
See pages 230 thru 235 for details.