

# 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</sub> (SAT) @ 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>CEV</sub><br>MAX |                 |                 |     |                   |                  |                                        |      | *C <sub>rb</sub><br>MAX | *TYP<br>MIN    | MAX  | MAX              |
| MPSA25   | NPN DARLINGTON   | EBC       | 40               | 40*                      | 10               | 100                      | 30              | 10,000          | --  | 5.0               | 100              | 1.50                                   | 100  | 125                     | --             | --   | --               |
| MPSA26   | NPN DARLINGTON   | EBC       | 50               | 50*                      | 10               | 100                      | 40              | 10,000          | --  | 5.0               | 100              | 1.50                                   | 100  | 125                     | --             | --   | --               |
| MPSA27   | NPN DARLINGTON   | EBC       | 60               | 60*                      | 10               | 100                      | 50              | 10,000          | --  | 5.0               | 100              | 1.50                                   | 100  | 125                     | --             | --   | --               |
| MPSA28   | NPN DARLINGTON   | EBC       | 80               | 80*                      | 12               | 100                      | 60              | 10,000          | --  | 5.0               | 100              | 1.50                                   | 100  | 8.0                     | 125            | --   | --               |
| MPSA29   | NPN DARLINGTON   | EBC       | 100              | 100                      | 12               | 100                      | 80              | 10,000          | --  | 5.0               | 100              | 1.50                                   | 100  | 8.0                     | 125            | --   | --               |
| MPSA42   | NPN HIGH VOLTAGE | EBC       | 300              | 300                      | 6.0              | 100                      | 200             | 40              | --  | 10                | 30               | 0.50                                   | 20   | 3.0                     | 50             | --   | --               |
| MPSA44   | NPN HIGH VOLTAGE | EBC       | 500              | 400                      | 6.0              | 100                      | 400             | 50              | 200 | 10                | 10               | 0.75                                   | 50   | 6.0                     | 20             | --   | --               |
| MPSA45   | NPN HIGH VOLTAGE | EBC       | 400              | 350                      | 6.0              | 100                      | 320             | 50              | 200 | 10                | 10               | 0.75                                   | 50   | 6.0                     | 20             | --   | --               |
| MPSA55   | PNP AMPL/SWITCH  | EBC       | 60               | 60                       | 4.0              | 100                      | 60              | 50              | --  | 1.0               | 100              | 0.25                                   | 100  | --                      | 50             | --   | --               |
| MPSA56   | PNP AMPL/SWITCH  | EBC       | 80               | 80                       | 4.0              | 100                      | 80              | 50              | --  | 1.0               | 100              | 0.25                                   | 100  | --                      | 50             | --   | --               |
| MPSA62   | PNP DARLINGTON   | EBC       | 20               | 20*                      | 10               | 100                      | 15              | 20,000          | --  | 5.0               | 10               | 1.0                                    | 10   | --                      | 125            | --   | --               |
| MPSA63   | PNP DARLINGTON   | EBC       | 30               | 30*                      | 10               | 100                      | 30              | 10,000          | --  | 5.0               | 100              | 1.50                                   | 100  | --                      | 125            | --   | --               |
| MPSA64   | PNP DARLINGTON   | EBC       | 30               | 30*                      | 10               | 100                      | 30              | 20,000          | --  | 5.0               | 100              | 1.50                                   | 100  | --                      | 125            | --   | --               |
| MPSA65   | PNP DARLINGTON   | EBC       | 30               | 30*                      | 8.0              | 100                      | 30              | 20,000          | --  | 5.0               | 100              | 1.50                                   | 100  | --                      | 100            | --   | --               |
| MPSA66   | PNP DARLINGTON   | EBC       | 30               | 30*                      | 8.0              | 100                      | 30              | 40,000          | --  | 5.0               | 100              | 1.50                                   | 100  | --                      | 100            | --   | --               |
| MPSA70   | PNP LOW NOISE    | EBC       | --               | 40                       | 4.0              | 100                      | 30              | 40              | 400 | 10                | 5.0              | 0.25                                   | 10   | 4.0                     | 125            | --   | --               |
| MPSA75   | PNP DARLINGTON   | EBC       | 40               | 40*                      | 10               | 100                      | 30              | 10,000          | --  | 5.0               | 100              | 1.50                                   | 100  | --                      | 125            | --   | --               |
| MPSA76   | PNP DARLINGTON   | EBC       | 50               | 50*                      | 10               | 100                      | 40              | 10,000          | --  | 5.0               | 100              | 1.50                                   | 100  | --                      | 125            | --   | --               |
| MPSA77   | PNP DARLINGTON   | EBC       | 60               | 60*                      | 10               | 100                      | 50              | 10,000          | --  | 5.0               | 100              | 1.50                                   | 100  | --                      | 125            | --   | --               |
| MPSA92   | PNP HIGH VOLTAGE | EBC       | 300              | 300                      | 5.0              | 250                      | 200             | 25              | --  | 10                | 30               | 0.5                                    | 20   | 6.0                     | 50             | --   | --               |
| MPSA94   | PNP HIGH VOLTAGE | EBC       | 500              | 400                      | 6.0              | 100                      | 400             | 50              | 200 | 10                | 10               | 0.75                                   | 50   | 6.0                     | 20             | --   | --               |
| MPSD04   | NPN DARLINGTON   | EBC       | --               | 25*                      | 10               | 1,000                    | 20              | 1,000           | --  | 5.0               | 300              | 1.0                                    | 100  | --                      | 100            | --   | --               |
| MPSD54   | PNP DARLINGTON   | EBC       | --               | 25*                      | 10               | 1,000                    | 20              | 1,000           | --  | 5.0               | 100              | 1.0                                    | 100  | --                      | 100            | --   | --               |
| MPSH10   | NPN RF OSC       | BEC       | 30               | 25                       | 3.0              | 100                      | 25              | 60              | --  | 10                | 4.0              | 0.50                                   | 4.0  | 0.65*                   | 650            | --   | --               |
| MPSH11   | NPN RF OSC       | BEC       | 30               | 25                       | 3.0              | 100                      | 25              | 60              | --  | 10                | 4.0              | 0.50                                   | 4.0  | 0.90*                   | 650            | --   | --               |
| MPSL01   | NPN HIGH VOLTAGE | EBC       | 140              | 120                      | 5.0              | 1,000                    | 75              | 50              | 300 | 5.0               | 10               | 0.30                                   | 50   | 8.0                     | 60             | --   | --               |
| MPSL51   | PNP HIGH VOLTAGE | EBC       | 100              | 100                      | 4.0              | 1,000                    | 50              | 40              | 250 | 5.0               | 50               | 0.30                                   | 50   | 8.0                     | 60             | --   | --               |
| PN918    | NPN RF OSC       | EBC       | 30               | 15                       | 3.0              | 10                       | 15              | 20              | --  | 1.0               | 3.0              | 0.40                                   | 10   | 1.7                     | 600            | 6.0  | --               |
| PN2222A  | NPN AMPL/SWITCH  | EBC       | 75               | 40                       | 6.0              | 10                       | 60              | 100             | 300 | 10                | 150              | 1.0                                    | 500  | 8.0                     | 300            | 4.0  | 285              |
| PN2369A  | NPN SAT SWITCH   | EBC       | 40               | 15                       | 4.5              | 400                      | 20              | 40              | 120 | 0.35              | 10               | 0.50                                   | 100  | 4.0                     | 500            | --   | 18               |
| PN2484   | NPN LOW NOISE    | EBC       | 60               | 60                       | 6.0              | 10                       | 45              | 250             | --  | 5.0               | 1.0              | 0.30                                   | 1.0  | 6.0                     | --             | 3.0  | --               |
| PN2906   | PNP AMPL/SWITCH  | EBC       | 60               | 40                       | 5.0              | 20                       | 50              | 40              | 120 | 10                | 150              | 1.60                                   | 500  | 8.0                     | 200            | --   | 100              |
| PN2906A  | PNP AMPL/SWITCH  | EBC       | 60               | 60                       | 5.0              | 10                       | 50              | 40              | 120 | 10                | 150              | 1.60                                   | 500  | 8.0                     | 200            | --   | 100              |
| PN2907   | PNP AMPL/SWITCH  | EBC       | 60               | 40                       | 5.0              | 20                       | 50              | 100             | 300 | 10                | 150              | 1.60                                   | 500  | 8.0                     | 200            | --   | 100              |
| PN2907A  | PNP AMPL/SWITCH  | EBC       | 60               | 60                       | 5.0              | 10                       | 50              | 100             | 300 | 10                | 150              | 1.60                                   | 500  | 8.0                     | 200            | --   | 100              |
| PN3563   | NPN RF OSC       | EBC       | 30               | 12                       | 2.0              | 50                       | 15              | 20              | 200 | 10                | 8.0              | --                                     | --   | 1.7                     | 600            | --   | --               |
| PN3564   | NPN RF OSC       | EBC       | 30               | 15                       | 4.0              | 50                       | 15              | 20              | 200 | 10                | 15               | 0.30                                   | 20   | 3.5                     | 400            | --   | --               |
| PN3565   | NPN LOW NOISE    | EBC       | 30               | 25                       | 6.0              | 50                       | 25              | 150             | 600 | 10                | 1.0              | 0.35                                   | 1.0  | 4.0                     | 40             | --   | --               |
| PN3566   | NPN AMPL/SWITCH  | EBC       | 40               | 30                       | 5.0              | 50                       | 20              | 150             | 600 | 10                | 10               | 1.0                                    | 100  | 25                      | 40             | --   | --               |
| PN3567   | NPN AMPL/SWITCH  | EBC       | 80               | 40                       | 5.0              | 50                       | 40              | 40              | 120 | 1.0               | 150              | 0.25                                   | 150  | 20                      | 60             | --   | --               |
| PN3568   | NPN AMPL/SWITCH  | EBC       | 80               | 60                       | 5.0              | 50                       | 40              | 40              | 120 | 1.0               | 150              | 0.25                                   | 150  | 20                      | 60             | --   | --               |
| PN3569   | NPN AMPL/SWITCH  | EBC       | 80               | 40                       | 5.0              | 50                       | 40              | 100             | 300 | 1.0               | 150              | 0.25                                   | 150  | 20                      | 60             | --   | --               |
| PN3638A  | PNP AMPL/SWITCH  | EBC       | 25               | 25                       | 4.0              | 35*                      | 15              | 100             | --  | 1.0               | 50               | 1.0                                    | 300  | 10                      | 150            | --   | 170              |
| PN3639   | PNP SAT SWITCH   | EBC       | 6.0              | 6.0                      | 4.0              | 10*                      | 3.0             | 30              | 120 | 0.30              | 10               | 0.50                                   | 50   | 3.5                     | 500            | --   | 60               |
| PN3640   | PNP SAT SWITCH   | EBC       | 12               | 12                       | 4.0              | 10*                      | 6.0             | 30              | 120 | 0.30              | 10               | 0.60                                   | 50   | 3.5                     | 500            | --   | 75               |

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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.

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## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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