

## Differential Amplifier Transistors - Monolithic Duals (Continued)

### Junction FETs - N-Channel (Continued)

| Type    | Package | V <sub>GS1-2</sub><br>mV<br>Max | ΔV <sub>GS</sub><br>μV/°C<br>Max | I <sub>G</sub><br>pA<br>Max | BV <sub>GSS</sub><br>V<br>Min | V <sub>p</sub><br>V |      | g <sub>fs</sub><br>mmho* |       | I <sub>DSS</sub><br>mA |      | e <sub>n</sub><br>nV/√Hz<br>Max |
|---------|---------|---------------------------------|----------------------------------|-----------------------------|-------------------------------|---------------------|------|--------------------------|-------|------------------------|------|---------------------------------|
|         |         |                                 |                                  |                             |                               | Min                 | Max  | Min                      | Max   | Min                    | Max  |                                 |
| 2N5902  | TO-78   | 5                               | 5                                | -3                          | -40                           | -0.6                | -4.5 | 0.07                     | 0.250 | 0.03                   | 0.50 | 100 @ 1kHz                      |
| 2N5903  | TO-78   | 5                               | 10                               | -3                          | -40                           | -0.6                | -4.5 | 0.07                     | 0.250 | 0.03                   | 0.50 | 100 @ 1kHz                      |
| 2N5904  | TO-78   | 10                              | 20                               | -3                          | -40                           | -0.6                | -4.5 | 0.07                     | 0.250 | 0.03                   | 0.50 | 100 @ 1kHz                      |
| 2N5905  | TO-78   | 15                              | 40                               | -3                          | -40                           | -0.6                | -4.5 | 0.07                     | 0.250 | 0.03                   | 0.50 | 100 @ 1kHz                      |
| 2N5906  | TO-99   | 5                               | 5                                | -1                          | -40                           | -0.6                | -4.5 | 0.07                     | 0.250 | 0.03                   | 0.50 | 100 @ 1kHz                      |
| 2N5907  | TO-99   | 5                               | 10                               | -1                          | -40                           | -0.6                | -4.5 | 0.07                     | 0.250 | 0.03                   | 0.50 | 100 @ 1kHz                      |
| 2N5908  | TO-99   | 10                              | 20                               | -1                          | -40                           | -0.6                | -4.5 | 0.07                     | 0.250 | 0.03                   | 0.50 | 100 @ 1kHz                      |
| 2N5909  | TO-99   | 15                              | 40                               | -1                          | -40                           | -0.6                | -4.5 | 0.07                     | 0.250 | 0.03                   | 0.50 | 100 @ 1kHz                      |
| 2N5911  | TO-99   | 10                              | 20                               | -100                        | -25                           | -1.0                | -5.0 | 5/10 @ 5mA               |       | 7.0                    | 40.0 | 20 @ 10kHz                      |
| 2N5912  | TO-99   | 15                              | 40                               | -100                        | -25                           | -1.0                | -5.0 | 5/10 @ 5mA               |       | 7.0                    | 40.0 | 20 @ 10kHz                      |
| 2N6483  | TO-71   | 5                               | 5                                | -100                        | -50                           | -0.7                | -4.0 | 1                        | 4     | 0.5                    | 7.5  | 10 @ 10Hz                       |
| 2N6484  | TO-71   | 10                              | 10                               | -100                        | -50                           | -0.7                | -4.0 | 1                        | 4     | 0.5                    | 7.5  | 10 @ 10Hz                       |
| 2N6485  | TO-71   | 15                              | 25                               | -100                        | -50                           | -0.7                | -4.0 | 1                        | 4     | 0.5                    | 7.5  | 10 @ 10Hz                       |
| IT500   | TO-71   | 5                               | 5                                | -5                          | -50                           | -0.7                | -4.0 | 0.7/1.6 @ 200μA          |       | 0.7                    | 7.0  | 35 @ 10Hz                       |
| IT501   | TO-71   | 5                               | 10                               | -5                          | -50                           | -0.7                | -4.0 | 0.7/1.6 @ 200μA          |       | 0.7                    | 7.0  | 35 @ 10Hz                       |
| IT502   | TO-71   | 10                              | 20                               | -5                          | -50                           | -0.7                | -4.0 | 0.7/1.6 @ 200μA          |       | 0.7                    | 7.0  | 35 @ 10Hz                       |
| IT503   | TO-71   | 15                              | 40                               | -5                          | -50                           | -0.7                | -4.0 | 0.7/1.6 @ 200μA          |       | 0.7                    | 7.0  | 35 @ 10Hz                       |
| IT504   | TO-71   | 25                              | 100                              | -5                          | -50                           | -0.7                | -4.0 | 0.7/1.6 @ 200μA          |       | 0.7                    | 7.0  | 35 @ 10Hz                       |
| IT505   | TO-71   | 50                              | 200                              | -5                          | -50                           | -0.7                | -4.0 | 0.7/1.6 @ 200μA          |       | 0.7                    | 7.0  | 35 @ 10Hz                       |
| ITC5911 | TO-99   | 10                              | 20                               | -100                        | -25                           | -1.0                | -5.0 | 5/10 @ 5mA               |       | 7.0                    | 40.0 | 20 @ 10kHz                      |
| ITC5912 | TO-99   | 15                              | 40                               | -100                        | -25                           | -1.0                | -5.0 | 5/10 @ 5mA               |       | 7.0                    | 40.0 | 20 @ 10kHz                      |

\* @ I<sub>DSS</sub>

### MOSFETs - Monolithic Dual P-Channel (Enhancement)

| Type  | Package | V <sub>GS(TH)</sub><br>V |     | BV <sub>DSS</sub><br>V<br>Min/Max | I <sub>DSS</sub><br>pA<br>Max | I <sub>GSS</sub><br>pA<br>Max | g <sub>fs</sub><br>μmho<br>Min | I <sub>D(ON)</sub><br>mA |     | r <sub>DS(ON)</sub><br>Ω<br>Max | V <sub>GS1-2</sub><br>mV<br>Max |
|-------|---------|--------------------------|-----|-----------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------|-----|---------------------------------|---------------------------------|
|       |         | Min                      | Max |                                   |                               |                               |                                | Min                      | Max |                                 |                                 |
| 3N165 | TO-99   | -2                       | -5  | -40                               | -200                          | -10                           | 1500                           | -5.0                     | -30 | 300                             | 100                             |
| 3N166 | TO-99   | -2                       | -5  | -40                               | -200                          | -10                           | 1500                           | -5.0                     | -30 | 300                             | -                               |
| 3N190 | TO-99   | -2                       | -5  | -40                               | -200                          | -10                           | 1500                           | -5.0                     | -30 | 300                             | 100                             |
| 3N191 | TO-99   | -2                       | -5  | -40                               | -200                          | -10                           | 1500                           | -5.0                     | -30 | 300                             | -                               |

\* @ I<sub>DSS</sub>

### Bipolar Monolithic Dual Transistors - NPN

| Type   | Package        | V <sub>BE1-2</sub><br>mV<br>Max | ΔV <sub>BE</sub><br>μV/°C<br>Max | h <sub>FE</sub><br>(Note 1)<br>Min | I <sub>B1-2</sub><br>(Note 1)<br>nA<br>Max | BV <sub>CEO</sub><br>V<br>Min | I <sub>CBO</sub><br>nA<br>Max | NF<br>dB<br>Max | f <sub>t</sub><br>MHz @ I <sub>C</sub><br>Min | C <sub>obo</sub><br>pF<br>Max |
|--------|----------------|---------------------------------|----------------------------------|------------------------------------|--------------------------------------------|-------------------------------|-------------------------------|-----------------|-----------------------------------------------|-------------------------------|
| 2N2920 | TO-78          | 3                               | 10                               | 150                                | -                                          | 60                            | 2                             | 3 typ           | 60 @ 0.5mA                                    | 6                             |
| 2N4044 | TO-78          | 3                               | 3                                | 200                                | 5                                          | 60                            | 0.1                           | 2               | 200 @ 1mA                                     | 0.8                           |
| 2N4045 | TO-78          | 5                               | 10                               | 80                                 | 25                                         | 45                            | 0.1                           | 3               | 150 @ 1mA                                     | 0.8                           |
| 2N4100 | TO-78          | 5                               | 5                                | 150                                | 10                                         | 55                            | 0.1                           | 3               | 150 @ 1mA                                     | 0.8                           |
| 2N4878 | TO-71          | 3                               | 3                                | 200                                | 5                                          | 60                            | 0.1                           | 2 typ           | 200 @ 1mA                                     | 0.8                           |
| 2N4879 | TO-71          | 5                               | 5                                | 150                                | 10                                         | 55                            | 0.1                           | 3 typ           | 150 @ 1mA                                     | 0.8                           |
| 2N4880 | TO-71          | 5                               | 10                               | 80                                 | 25                                         | 45                            | 0.1                           | 3 typ           | 150 @ 1mA                                     | 0.8                           |
| IT120  | TO-78<br>TO-71 | 2                               | 5                                | 200                                | 5                                          | 45                            | 1.0                           | 2 typ           | 220 @ 1mA                                     | 2                             |
| IT120A | TO-78<br>TO-71 | 1                               | 3                                | 200                                | 2.5                                        | 45                            | 1.0                           | 2 typ           | 220 @ 1mA                                     | 2                             |

NOTE: 1. I<sub>C</sub> = 10μA