

| Part Number | Applications  | Absolute Maximum Ratings |                  |                |                |                  |            | hFE             |            |     |                 |                |
|-------------|---|--------------------------|------------------|----------------|----------------|------------------|------------|-----------------|------------|-----|-----------------|----------------|
|             |   | V <sub>CB0</sub>         | V <sub>CE0</sub> | I <sub>c</sub> | P <sub>c</sub> | I <sub>CB0</sub> | Conditions |                 | Conditions |     |                 |                |
|             |   | (V)                      | (V)              | (A)            | (W)            |                  | ( $\mu$ A) | V <sub>CB</sub> | min        | max | V <sub>CE</sub> | I <sub>c</sub> |
|             |   |                          |                  |                |                |                  | (V)        | (V)             |            |     | (A)             |                |
| 2SC2837     | Audio, general-purpose                                    | 150                      | 150              | 10             | 100            | 100              | 150        | 50              | 180        | 4   | 3               |                |
| 2SC2921     | Audio, general-purpose                                    | 160                      | 160              | 15             | 150            | 100              | 160        | 50              | 180        | 4   | 5               |                |
| 2SC2922     | Audio, general-purpose                                    | 180                      | 180              | 17             | 200            | 100              | 180        | 30              | 180        | 4   | 8               |                |
| 2SC3263     | Audio, general-purpose                                    | 230                      | 230              | 15             | 130            | 100              | 230        | 50              | 140        | 4   | 5               |                |
| 2SC3264     | Audio, general-purpose                                    | 230                      | 230              | 17             | 200            | 100              | 230        | 50              | 140        | 4   | 5               |                |
| 2SC3284     | Audio, general-purpose                                    | 150                      | 150              | 14             | 125            | 100              | 150        | 50              | 180        | 4   | 5               |                |
| 2SC3519     | Audio, general-purpose                                    | 160                      | 160              | 15             | 130            | 100              | 160        | 50              | 180        | 4   | 5               |                |
| 2SC3519A    | Audio, general-purpose                                    | 180                      | 180              | 15             | 130            | 100              | 180        | 50              | 180        | 4   | 5               |                |
| 2SC3835     | Humidifier, DC-DC converter, general-purpose              | 200                      | 120              | 7 (Pulse 14)   | 70             | 100              | 200        | 70              | 220        | 4   | 3               |                |
| 2SC3851     | Audio, PPC high voltage power supply, general-purpose     | 80                       | 60               | 4              | 25             | 100              | 80         | 40              | 320        | 4   | 1               |                |
| 2SC3851A    | Audio, PPC high voltage power supply, general-purpose     | 100                      | 80               | 4              | 25             | 100              | 100        | 40              | 320        | 4   | 1               |                |
| 2SC3852     | Solenoid/motor driver/series regulator, general-purpose   | 80                       | 60               | 3              | 25             | 10               | 80         | 500             |            | 4   | 0.5             |                |
| 2SC3852A    | Solenoid/motor driver/series regulator, general-purpose   | 100                      | 80               | 3              | 25             | 10               | 100        | 500             |            | 4   | 0.5             |                |
| 2SC3856     | Audio, general-purpose                                    | 200                      | 180              | 15             | 130            | 100              | 200        | 80              | 180        | 4   | 3               |                |
| 2SC3857     | Audio, general-purpose                                    | 200                      | 200              | 15             | 150            | 100              | 200        | 50              | 180        | 4   | 5               |                |
| 2SC3858     | Audio, general-purpose                                    | 200                      | 200              | 17             | 200            | 100              | 200        | 50              | 180        | 4   | 8               |                |
| 2SC3927     | Switching regulator, general-purpose                      | 900                      | 550              | 10 (Pulse 15)  | 120            | 100              | 800        | 10              | 28         | 4   | 5               |                |
| 2SC4024     | DC-DC converter, emergency lamp inverter, general-purpose | 100                      | 50               | 10             | 35             | 100              | 100        | 300             | 1600       | 4   | 1               |                |
| 2SC4131     | DC-DC converter, emergency lamp inverter, general-purpose | 100                      | 50               | 15 (Pulse 20)  | 60             | 10               | 100        | 60              | 360        | 1   | 5               |                |
| 2SC4138     | Switching regulator, general-purpose                      | 500                      | 400              | 10 (Pulse 20)  | 80             | 100              | 500        | 10              | 30         | 4   | 6               |                |
| 2SC4140     | Switching regulator, general-purpose                      | 500                      | 400              | 18 (Pulse 36)  | 130            | 100              | 500        | 10              | 30         | 4   | 10              |                |
| 2SC4153     | Humidifier, DC-DC converter, general-purpose              | 200                      | 120              | 7 (Pulse 14)   | 30             | 100              | 200        | 70              | 220        | 4   | 3               |                |
| 2SC4300     | Switching regulator, general-purpose                      | 900                      | 800              | 5 (Pulse 10)   | 75             | 100              | 800        | 10              | 30         | 4   | 2               |                |
| 2SC4301     | Switching regulator, lighting inverter, general-purpose   | 900                      | 800              | 7 (Pulse 14)   | 80             | 100              | 800        | 10              | 30         | 4   | 3               |                |
| 2SC4304     | Switching regulator, general-purpose                      | 900                      | 800              | 3 (Pulse 6)    | 35             | 100              | 800        | 10              | 30         | 4   | 0.7             |                |
| 2SC4381     | TV vertical output, audio output driver, general-purpose  | 150                      | 150              | 2              | 25             | 10               | 150        | 60              |            | 10  | 0.7             |                |
| 2SC4382     | TV vertical output, audio output driver, general-purpose  | 200                      | 200              | 2              | 25             | 10               | 200        | 60              |            | 10  | 0.7             |                |
| 2SC4388     | Audio, general-purpose                                    | 200                      | 180              | 15             | 85             | 10               | 200        | 50              | 180        | 4   | 3               |                |
| 2SC4445     | Switching regulator, general-purpose                      | 900                      | 800              | 3 (Pulse 6)    | 60             | 100              | 800        | 10              | 30         | 4   | 0.7             |                |
| 2SC4466     | Audio, general-purpose                                    | 120                      | 80               | 6              | 60             | 10               | 120        | 50              | 180        | 4   | 2               |                |
| 2SC4467     | Audio, general-purpose                                    | 160                      | 120              | 8              | 80             | 10               | 160        | 50              | 180        | 4   | 3               |                |
| 2SC4468     | Audio, general-purpose                                    | 200                      | 140              | 10             | 100            | 10               | 200        | 50              | 180        | 4   | 3               |                |
| 2SC4495     | For audio temperature compensation, general-purpose       | 80                       | 50               | 3              | 25             | 10               | 80         | 500             |            | 4   | 0.5             |                |
| 2SC4511     | Audio, general-purpose                                    | 120                      | 80               | 6              | 30             | 10               | 120        | 50              | 180        | 4   | 2               |                |
| 2SC4518     | Switching regulator, lighting inverter, general-purpose   | 900                      | 550              | 5 (Pulse 10)   | 35             | 100              | 800        | 10              | 25         | 4   | 1.8             |                |
| 2SC4518A    | Switching regulator, lighting inverter, general-purpose   | 1000                     | 550              | 5 (Pulse 10)   | 35             | 100              | 800        | 10              | 25         | 4   | 1.8             |                |
| 2SC4546     | Switching regulator, lighting inverter, general-purpose   | 600                      | 400              | 7 (Pulse 14)   | 30             | 100              | 600        | 10              | 25         | 4   | 3               |                |
| 2SC4706     | Switching regulator, general-purpose                      | 900                      | 600              | 14 (Pulse 28)  | 130            | 100              | 800        | 10              | 25         | 4   | 7               |                |
| 2SC4883     | Audio output driver, TV velocity modulation               | 150                      | 150              | 2              | 20             | 10               | 150        | 60              | 240        | 10  | 0.7             |                |
| 2SC4883A    | Audio output driver, TV velocity modulation               | 180                      | 180              | 2              | 20             | 10               | 180        | 60              | 240        | 10  | 0.7             |                |
| 2SC4886     | Audio, general-purpose                                    | 150                      | 150              | 14             | 80             | 100              | 150        | 50              | 180        | 4   | 5               |                |
| 2SC5071     | Switching regulator, general-purpose                      | 500                      | 400              | 12 (Pulse 24)  | 100            | 100              | 500        | 10              | 30         | 4   | 7               |                |
| 2SC5099     | Audio, general-purpose                                    | 120                      | 80               | 6              | 60             | 10               | 120        | 50              | 180        | 4   | 2               |                |
| 2SC5100     | Audio, general-purpose                                    | 160                      | 120              | 8              | 75             | 10               | 160        | 50              | 180        | 4   | 3               |                |
| 2SC5101     | Audio, general-purpose                                    | 200                      | 140              | 10             | 80             | 10               | 200        | 50              | 180        | 4   | 3               |                |
| 2SC5130     | Switching regulator, general-purpose                      | 600                      | 400              | 5 (Pulse 10)   | 30             | 100              | 500        | 10              | 30         | 4   | 1.5             |                |
| 2SC5287     | Switching regulator, general-purpose                      | 900                      | 550              | 5 (Pulse 10)   | 80             | 100              | 800        | 10              | 25         | 4   | 1.8             |                |
| 2SC6011     | Audio, general-purpose                                    | 200                      | 200              | 15             | 160            | 10               | 200        | 50              | 180        | 4   | 3               |                |
| 2SC6011A    | Audio, general-purpose                                    | 230                      | 230              | 15             | 160            | 10               | 230        | 50              | 180        | 4   | 3               |                |
| 2SC6145     | Audio, general-purpose                                    | 230                      | 230              | 15             | 160            | 10               | 230        | 40              | 140        | 4   | 5               |                |

| Electrical Characteristics |                       |                |                |     |                 |                |                 |                  |                |                 |          | Complementary  | Package | Mass<br>(g) |
|----------------------------|-----------------------|----------------|----------------|-----|-----------------|----------------|-----------------|------------------|----------------|-----------------|----------|----------------|---------|-------------|
| V <sub>CE</sub> (sat)      | V <sub>BE</sub> (sat) | Conditions     |                |     | f <sub>T</sub>  |                | Switching Time  |                  |                | C <sub>ob</sub> |          |                |         |             |
| (V)                        | (V)                   | I <sub>c</sub> | I <sub>b</sub> | MHz | V <sub>CE</sub> | I <sub>E</sub> | t <sub>on</sub> | t <sub>sig</sub> | t <sub>f</sub> |                 |          |                |         |             |
| max                        | max                   | (A)            | (A)            |     | (V)             | (A)            | (μs)            | (μs)             | (μs)           | (pF)            |          |                |         |             |
| 2.0                        |                       | 5              | 0.5            | 70  | 12              | -1             | 0.2typ          | 1.4typ           | 0.35typ        | 60typ           | 2SA1186  | TO-3P (MT-100) | 6.0     |             |
| 2.0                        |                       | 5              | 0.5            | 60  | 12              | -2             | 0.2typ          | 1.5typ           | 0.35typ        | 200typ          | 2SA1215  | MT-200         | 18.4    |             |
| 2.0                        |                       | 8              | 0.8            | 50  | 12              | -2             | 0.2typ          | 1.3typ           | 0.45typ        | 250typ          | 2SA1216  | MT-200         | 18.4    |             |
| 2.0                        |                       | 5              | 0.5            | 60  | 12              | -2             | 0.3typ          | 2.4typ           | 0.5typ         | 250typ          | 2SA1294  | TO-3P (MT-100) | 6.0     |             |
| 2.0                        |                       | 5              | 0.5            | 60  | 12              | -2             | 0.3typ          | 2.4typ           | 0.5typ         | 250typ          | 2SA1295  | MT-200         | 18.4    |             |
| 2.0                        |                       | 5              | 0.5            | 60  | 12              | -2             | 0.2typ          | 1.5typ           | 0.35typ        | 200typ          | 2SA1303  | TO-3P (MT-100) | 6.0     |             |
| 2.0                        |                       | 5              | 0.5            | 50  | 12              | -2             | 0.2typ          | 1.3typ           | 0.45typ        | 250typ          | 2SA1386  | TO-3P (MT-100) | 6.0     |             |
| 2.0                        |                       | 5              | 0.5            | 50  | 12              | -2             | 0.2typ          | 1.3typ           | 0.45typ        | 250typ          | 2SA1386A | TO-3P (MT-100) | 6.0     |             |
| 0.5                        | 1.2                   | 3              | 0.3            | 30  | 12              | -0.5           | 0.5max          | 3max             | 0.5max         | 110typ          |          | TO-3P (MT-100) | 6.0     |             |
| 0.5                        |                       | 2              | 0.2            | 15  | 12              | -0.2           | 0.2typ          | 1typ             | 0.3typ         | 60typ           | 2SA1488  | TO-220F (FM20) | 2.0     |             |
| 0.5                        |                       | 2              | 0.2            | 15  | 12              | -0.2           | 0.2typ          | 1typ             | 0.3typ         | 60typ           | 2SA1488A | TO-220F (FM20) | 2.0     |             |
| 0.5                        |                       | 2              | 0.05           | 15  | 12              | -0.2           | 0.8typ          | 3typ             | 1.2typ         | 50typ           |          | TO-220F (FM20) | 2.0     |             |
| 0.5                        |                       | 2              | 0.05           | 15  | 12              | -0.2           | 0.8typ          | 3typ             | 1.2typ         | 50typ           |          | TO-220F (FM20) | 2.0     |             |
| 2.0                        |                       | 5              | 0.5            | 20  | 12              | -0.5           | 0.5typ          | 1.8typ           | 0.6typ         | 300typ          | 2SA1492  | TO-3P (MT-100) | 6.0     |             |
| 3.0                        |                       | 10             | 1              | 20  | 12              | -0.5           | 0.3typ          | 2.4typ           | 0.4typ         | 250typ          | 2SA1493  | MT-200         | 18.4    |             |
| 2.5                        |                       | 10             | 1              | 20  | 12              | -1             | 0.5typ          | 1.8typ           | 0.6typ         | 300typ          | 2SA1494  | MT-200         | 18.4    |             |
| 0.5                        | 1.2                   | 5              | 1              | 6   | 12              | -1             | 1max            | 5max             | 0.5max         | 105typ          |          | TO-3P (MT-100) | 6.0     |             |
| 0.5                        |                       | 5              | 0.1            | 24  | 12              | -0.5           | 0.5typ          | 2typ             | 0.5typ         | 150typ          |          | TO-220F (FM20) | 2.0     |             |
| 0.5                        | 1.2                   | 5              | 0.08           | 18  | 12              | -1             | 0.5typ          | 2typ             | 0.4typ         | 210typ          |          | TO-3PF (FM100) | 6.5     |             |
| 0.5                        | 1.3                   | 6              | 1.2            | 10  | 12              | -0.7           | 1max            | 3max             | 0.5max         | 85typ           |          | TO-3P (MT-100) | 6.0     |             |
| 0.5                        | 1.3                   | 10             | 2              | 10  | 12              | -2.0           | 1max            | 3max             | 0.5max         | 165typ          |          | TO-3P (MT-100) | 6.0     |             |
| 0.5                        | 1.2                   | 3              | 0.3            | 30  | 12              | -0.5           | 0.5max          | 3max             | 0.5max         | 110typ          |          | TO-220F (FM20) | 2.0     |             |
| 0.5                        | 1.2                   | 2              | 0.4            | 6   | 12              | -0.5           | 1max            | 5max             | 1max           | 75typ           |          | TO-3PF (FM100) | 6.5     |             |
| 0.5                        | 1.2                   | 3              | 0.6            | 6   | 12              | -1             | 1max            | 5max             | 1max           | 105typ          |          | TO-3PF (FM100) | 6.5     |             |
| 0.5                        | 1.2                   | 7              | 0.14           | 15  | 12              | -0.3           | 0.7max          | 4max             | 0.7max         | 50typ           |          | TO-220F (FM20) | 2.0     |             |
| 1.0                        |                       | 7              | 0.07           | 15  | 12              | -0.2           | 1typ            | 3typ             | 1.5typ         | 35              | 2SA1667  | TO-220F (FM20) | 2.0     |             |
| 1.0                        |                       | 7              | 0.07           | 15  | 12              | -0.2           | 1typ            | 3typ             | 1.5typ         | 35              | 2SA1668  | TO-220F (FM20) | 2.0     |             |
| 2.0                        |                       | 5              | 0.5            | 20  | 12              | -0.5           | 0.5max          | 1.8max           | 0.6max         | 300             | 2SA1673  | TO-3PF (FM100) | 6.5     |             |
| 0.5                        | 1.2                   | 0.7            | 0.14           | 15  | 12              | -0.3           | 0.7max          | 4max             | 0.7max         | 50              |          | TO-3PF (FM100) | 6.5     |             |
| 1.5                        |                       | 2              | 0.2            | 20  | 12              | -0.5           | 0.16typ         | 2.6typ           | 0.34typ        | 110             | 2SA1693  | TO-3P (MT-100) | 6.0     |             |
| 1.5                        |                       | 3              | 0.3            | 20  | 12              | -0.5           | 0.13typ         | 3.5typ           | 0.32typ        | 200             | 2SA1694  | TO-3P (MT-100) | 6.0     |             |
| 0.5                        |                       | 5              | 0.5            | 20  | 12              | -0.5           | 0.24typ         | 4.32typ          | 0.4typ         | 250             | 2SA1695  | TO-3P (MT-100) | 6.0     |             |
| 0.5                        |                       | 4              | 0.02           | 40  | 12              | -0.1           | 0.45typ         | 1.6typ           | 0.85typ        | 30              |          | TO-220F (FM20) | 2.0     |             |
| 0.5                        |                       | 2              | 0.2            | 20  | 12              | -0.5           | 0.16typ         | 2.6typ           | 0.34typ        | 110             | 2SA1725  | TO-220F (FM20) | 2.0     |             |
| 0.5                        | 1.2                   | 1.8            | 0.36           | 6   | 12              | -0.35          | 0.7max          | 4max             | 0.5max         | 50              |          | TO-220F (FM20) | 2.0     |             |
| 0.5                        | 1.2                   | 1.8            | 0.36           | 6   | 12              | -0.35          | 0.7max          | 4max             | 0.5max         | 50              |          | TO-220F (FM20) | 2.0     |             |
| 0.7                        | 1.3                   | 3              | 0.6            | 10  | 12              | -0.5           | 0.5max          | 2max             | 0.15max        | 55              |          | TO-220F (FM20) | 2.0     |             |
| 0.5                        | 1.2                   | 7              | 1.4            | 6   | 12              | -1.5           | 1max            | 5max             | 0.7max         | 160             |          | TO-3P (MT-100) | 6.0     |             |
| 1.0                        |                       | 0.7            | 0.07           | 120 | 12              | -0.7           | 0.5typ          | 1.5typ           | 0.5typ         | 30              | 2SA1859  | TO-220F (FM20) | 2.0     |             |
| 1.0                        |                       | 0.7            | 0.07           | 120 | 12              | -0.7           | 0.5typ          | 1.5typ           | 0.5typ         | 30              | 2SA1859A | TO-220F (FM20) | 2.0     |             |
| 2.0                        |                       | 5              | 0.5            | 60  | 12              | -2             | 0.26typ         | 1.5typ           | 0.35typ        | 200             | 2SA1860  | TO-3PF (FM100) | 6.5     |             |
| 0.5                        | 1.3                   | 7              | 1.4            | 10  | 12              | -1             | 1max            | 3max             | 0.5max         | 105             |          | TO-3P (MT-100) | 6.0     |             |
| 0.5                        |                       | 2              | 0.2            | 20  | 12              | -0.5           | 0.16typ         | 2.6typ           | 0.34typ        | 110             | 2SA1907  | TO-3PF (FM100) | 6.5     |             |
| 0.5                        |                       | 3              | 0.3            | 20  | 12              | -0.5           | 0.13typ         | 3.5typ           | 0.32typ        | 200             | 2SA1908  | TO-3PF (FM100) | 6.5     |             |
| 0.5                        |                       | 5              | 0.5            | 20  | 12              | -0.5           | 0.24typ         | 4.32typ          | 0.4typ         | 250             | 2SA1909  | TO-3PF (FM100) | 6.5     |             |
| 0.5                        | 1.3                   | 1.5            | 0.3            | 20  | 12              | -0.3           | 1max            | 2max             | 0.3max         | 30              |          | TO-220F (FM20) | 2.0     |             |
| 0.5                        | 1.2                   | 1.8            | 0.36           | 6   | 12              | -0.35          | 0.7max          | 4max             | 0.5max         | 50              |          | TO-3P (MT-100) | 6.0     |             |
| 0.5                        |                       | 5              | 0.5            | 20  | 12              | -0.5           | -               | -                | -              | 270             | 2SA2151  | TO-3P (MT-100) | 6.0     |             |
| 0.5                        |                       | 5              | 0.5            | 20  | 12              | -0.5           | -               | -                | -              | 270             | 2SA2151A | TO-3P (MT-100) | 6.0     |             |
| 0.5                        |                       | 5              | 0.5            | 60  | 12              | -2             | -               | -                | -              | 250             | 2SA2223  | TP-3P (MT-100) | 6.0     |             |