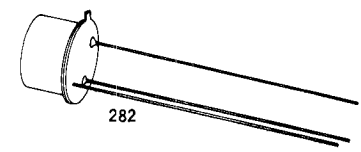
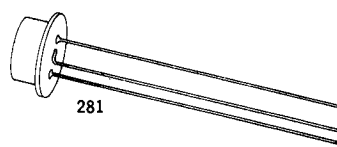


GERMANIUM SIGNAL TRANSISTORS



| GE Type | h_{FE} @ 1V, 20mA | f_{Tb} Typical (MHz) | BV_{CER} Min. @ 600 μ A 10K Ω (V) | I_{CBO} Max. @ V_{CB} | | P_T Max. (mW) | Comments | Package Outline No. | Specification Sheet No. |
|---------------------|------------------------|------------------------------|--|---------------------------------|-----|-----------------------|---|---------------------------|-------------------------------|
| | | | | (μ A) | (V) | | | | |
| 2N43A ¹ | 34-65 | 1.3 | 30 | 16 | 45 | 240 | See 2N525. | 281 | 20.10 |
| 2N44A ¹ | 18-43 | 1.0 | 30 | 16 | 45 | 240 | See 2N524. | 281 | 20.10 |
| 2N188A | 34-65 | 1.2 | 25 | 16 | 25 | 200 | See 2N508, 2N1175 and 2N1413 series. | 281 | 80.15 |
| 2N241A | 50-125 | 1.3 | 25 | 16 | 25 | 200 | | 281 | 80.18 |
| 2N319 | 25-42 | 2.0 | 20 | 16 | 25 | 225 | | 282 | 80.24 |
| 2N320 | 34-65 | 2.5 | 20 | 16 | 25 | 225 | | 282 | 80.24 |
| 2N321 | 53-121 | 3.0 | 20 | 16 | 25 | 225 | Audio driver and audio output. | 282 | 80.24 |
| 2N322 | 34-65 | 3.0 | 18 | 16 | 16 | 200 | | 282 | 80.25 |
| 2N323 | 53-121 | 3.5 | 18 | 16 | 16 | 200 | | 282 | 80.25 |
| 2N324 | 72-198 | 4.0 | 18 | 16 | 16 | 200 | | 282 | 80.25 |
| 2N396 | 30-150 ² | 8.0 | 20 | 6 | 20 | 200 | Industrial/Military-medium beta, medium speed switch. | 282 | 25.24 |
| 2N396A ¹ | 30-150 ² | 8.0 | 20 ⁴ | 6 | 20 | 200 | Same as 2N396. | 282 | 25.24 |
| 2N397 | 40-150 ² | 12.0 | 15 | 6 | 15 | 200 | Industrial/Military-medium speed switch. | 282 | — |
| 2N404 | — | 8.0 | 24 ⁵ | 5 | 12 | 150 | Medium speed switch—wide beta spread. | 282 | 25.27 |
| 2N404A | — | 8.0 | 35 ⁵ | 5 | 12 | 150 | Same as 2N404. | 282 | 25.27 |
| 2N413 | 20-100 ² | 6.0 | 18 ⁴ | 5 | 12 | 150 | General purpose medium speed switch. | 282 | 25.30 |
| 2N414 | 30-120 ² | 7.0 | 15 ⁴ | 5 | 12 | 150 | Same as 2N413. | 282 | 25.31 |
| 2N461 | 32-199 ³ | 4.0 | 35 | 15 | 45 | 200 | General purpose—2N525 recommended. | 282 | 20.25 |
| 2N508 | 100-200 | 4.5 | 18 | 7 | 16 | 200 | High gain, low noise preamplifiers. | 282 | 80.28 |
| 2N508A | 100-200 | 4.5 | 25 | 7 | 25 | 200 | | 282 | 80.28 |
| 2N524 | 25-42 | 2.5 | 30 | 10 | 30 | 225 | | 282 | 20.30 |
| 2N525 | 34-65 | 3.0 | 30 | 10 | 30 | 225 | Military/industrial—Audio amplifiers and medium speed switch. Specified h_{FE} hold-up, high temperature I_{CO} , and low temperature h_{FE} . Guaranteed reliability index. | 282 | 20.30 |
| 2N526 ¹ | 53-90 | 3.5 | 30 | 10 | 30 | 225 | | 282 | 20.30 |
| 2N527 | 72-121 | 4.0 | 30 | 10 | 30 | 225 | | 282 | 20.30 |
| 2N1175 | 70-140 | 4.0 | 25 | 12 | 30 | 200 | General purpose industrial and consumers preamplifier. | 282 | 20.35 |
| 2N1175A | 70-140 | 4.0 | 25 | 12 | 30 | 200 | General purpose industrial and consumer, high gain, low noise preamplifiers. Guaranteed noise figure. | 282 | 20.35 |
| 2N1303 ¹ | 20 Min. ² | 7.0 | 25 ⁵ | 6 | 25 | 150 | | 282 | 25.65 |
| 2N1305 ¹ | 40-200 ² | 8.0 | 20 ⁵ | 6 | 25 | 150 | Medium speed switch. | 282 | 25.65 |
| 2N1307 ¹ | 60-300 ² | 12.0 | 15 ⁵ | 6 | 25 | 150 | | 282 | 25.65 |
| 2N1413 | 25-42 | 3.2 | 25 | 12 | 30 | 200 | | 282 | 20.70 |
| 2N1414 | 34-65 | 3.6 | 25 | 12 | 30 | 200 | General purpose industrial and consumer audio amplifier and medium speed switch. | 282 | 20.70 |
| 2N1415 | 53-90 | 4.0 | 25 | 12 | 30 | 200 | | 282 | 20.70 |
| 2N1924 | 34-65 | 3.0 | 40 | 10 | 45 | 225 | Military/industrial audio amplifier and medium speed switch. High voltage, specified h_{FE} hold-up, low temperature h_{FE} , and high temperature I_{CO} . Guaranteed reliability index. | 282 | 20.80 |
| 2N1925 | 53-90 | 3.5 | 40 | 10 | 45 | 225 | | 282 | 20.80 |
| 2N1926 | 72-121 | 4.0 | 40 | 10 | 45 | 225 | | 282 | 20.80 |

¹ Also available as military types.

² $V_{CE} = 1V$, $I_C = 10mA$.

³ $V_{CB} = 5V$, $I_E = 1mA$, $f = 1 KHz$

⁴ BV_{CEO} .

⁵ V_{RT}

⁶ $V_{RT} = 60V$