

GENERAL PURPOSE AMPLIFIERS AND MEDIUM-SPEED SWITCHES

PNP TRANSISTORS

| TYPE | CASE STYLE | V_{CB0} Min | V_{CE0} Min | V_{EBO} Min | I_{CB0} @ V_{CB} Max | h_{FE} @ I_C & V_{CE} Min-Max | $V_{CE(sat)}$ Max & $V_{BE(sat)}$ Max @ I_C | I_C | C_{ob} Max | f_T @ I_C Min | t_{off} Max |
|--------------------|-----------------|------------------|------------------|------------------|-----------------------------|--|---|--------|-----------------|----------------------|------------------|
| 2N3702 and MPS3702 | TO92-2 TO92 | 40V | 25V | 5V | 100 nA @ 20V | 60-300 @ 50 mA/ 5V | 0.25 V 1.0V @ 50 mA | 50 mA | 12 pF | 100 MHz @ 50 mA | |
| 2N3703 and MPS3703 | TO92-2 TO92 | 50V | 30V | 5V | 100 nA @ 20V | 30-150 @ 50 mA/ 5V | 0.25 V 1.0V @ 50 mA | 50 mA | 12 pF | 100 MHz @ 50 mA | |
| PN5138 | TO92 | 30V | 30V | 5V | 50 nA @ 20V | 50-800 @ 0.1 mA/10V 50 @ 1 mA/10V 50 @ 10 mA/10V | 0.3 V 1.0V @ 10 mA | 10 mA | 7 pF | 30 MHz @ 0.5 mA | |
| PN5139 | TO92 | 20V | 20V | 5V | 50 nA @ 15V | 30 @ 0.1 mA/10V 40 @ 1 mA/10V 40 @ 10 mA/ 1V 15 @ 50 mA/10V | 0.15 V @ 1 mA 0.2 V @ 10 mA 0.5 V 1.25V @ 50 mA | 10 mA | 5 pF | 300 MHz @ 10 mA | 200 nS |
| 2N5221 and A5T5221 | TO92 TO92-38 | 15V | 15V | 3V | 100 nA @ 10V | 25 @ 10 mA/10V 30-600 @ 50 mA/10V | 0.6 V 1.1V @ 150 mA | 150 mA | 15 pF | 100 MHz @ 20 mA | |
| 2N5226 and A5T5226 | TO92 TO92-38 | 25V | 25V | 4V | 300 nA @ 15V | 25 @ 10 mA/10V 30-600 @ 50 mA/10V | 0.8 V 1 V @ 100 mA | 100 mA | 20 pF | 50 MHz @ 20 mA | |
| MPSA70 | TO92 | 25V | 40V | 4V | 100 nA @ 30V | 40-400 @ 5 mA/10V | 0.25 V @ 10 mA | 10 mA | 4 pF | 125 MHz @ 5 mA | |
| 2N5354 | TO92-2 | 25V | 4V | 25V | 100 nA @ 25V | 32 @ 2 mA/10V 40-120 @ 50 mA/ 1V 20 @ 300 mA/ 5V | 0.25 V 1.1 V @ 50 mA 1.00 V 2.0V @ 300 mA | 50 mA | 8 pF | | |
| 2N5355 | TO92-2 | 25V | 4V | 25V | 100 nA @ 25V | 80 @ 2 mA/10V 100-300 @ 50 mA/ 1V 40 @ 300 mA/ 5V | 0.25 V 1.1V @ 50 mA 1 V 2V @ 300 mA | 50 mA | 8 pF | | |
| 2N5365 | TO92-2 | 40V | 4V | 40V | 100 nA @ 40V | 32 @ 2 mA/10V 40-120 @ 50 mA/ 1V 20 @ 300 mA/ 5V | 0.25 V 1.1V @ 50 mA 1 V 2.0V @ 300 mA | 50 mA | 8 pF | | |
| 2N5366 | TO92-2 | 40V | 4V | 40V | 100 nA @ 40V | 80 @ 2 mA/10V 100-300 @ 50 mA/ 1V 40 @ 300 mA/ 5V | 0.25 V 1.1V @ 50 mA 1 V 2.0V @ 300 mA | 50 mA | 8 pF | | |
| 2N5367 | TO92-2 | 40V | 4V | 40V | 100 nA @ 40V | 200 @ 2 mA/10V 250-300 @ 50 mA/ 1V 75 @ 300 mA/ 5V | 0.25 V 1.1V @ 50 mA 1 V 2.0V @ 300 mA | 50 mA | 8 pF | | |

GENERAL PURPOSE AMPLIFIERS AND HIGH-SPEED SWITCHES

PNP TRANSISTORS

| TYPE | CASE STYLE | V_{CB0} Min | V_{CE0} Min | V_{EBO} Min | I_{CB0} @ V_{CB} Max | h_{FE} @ I_C & V_{CE} Min-Max | $V_{CE(sat)}$ Max & $V_{BE(sat)}$ Max @ I_C | I_C | C_{ob} Max | f_T @ I_C Min | t_{off} Max |
|---------------------|--------------|------------------|------------------|------------------|-----------------------------|---|---|--------|-----------------|----------------------|------------------|
| 2N2904 and PN2904 | TO5 TO92 | 60V | 40V | 5V | 20 nA @ 50V | 20 @ 0.1 mA/10V 25 @ 1 mA/10V 35 @ 10 mA/10V 40-120 @ 150 mA/10V 20 @ 500 mA/10V | 0.4 V 1.3V @ 150 mA 1.8 V 2.6V @ 500 mA | 150 mA | 8 pF | 200 MHz @ 50 mA | 110 nS |
| 2N2904A and PN2904A | TO5 TO92 | 60V | 60V | 5V | 10 nA @ 50V | 40 @ 0.1 mA/10V 40 @ 1 mA/10V 40 @ 10 mA/10V 40-120 @ 150 mA/10V 40 @ 500 mA/10V | 0.4 V 1.3V @ 150 mA 1.8 V 2.6V @ 500 mA | 150 mA | 8 pF | 200 MHz @ 50 mA | 200 nS |
| 2N2905 and PN2905 | TO5 TO92 | 60V | 40V | 5V | 20 nA @ 50V | 35 @ 0.1 mA/10V 50 @ 1 mA/10V 75 @ 10 mA/10V 100-300 @ 150 mA/10V 30 @ 500 mA/10V | 0.4 V 1.3V @ 150 mA 1.8 V 2.6V @ 500 mA | 150 mA | 8 pF | 200 MHz @ 50 mA | 110 nS |
| 2N2905A and PN2905A | TO5 TO92 | 60V | 60V | 5V | 10 nA @ 50V | 75 @ 0.1 mA/10V 100 @ 1 mA/10V 100 @ 10 mA/10V 100-300 @ 150 mA/10V 50 @ 500 mA/10V | 0.4 V 1.3V @ 150 mA 1.8 V 2.6V @ 500 mA | 150 mA | 8 pF | 200 MHz @ 50 mA | 100 nS |
| 2N2906 and PN2906 | TO18 TO92 | 60V | 40V | 5V | 20 nA @ 50V | 20 @ 0.1 mA/10V 25 @ 1 mA/10V 35 @ 10 mA/10V 40-120 @ 150 mA/10V 20 @ 500 mA/10V | 0.4 V 1.3V @ 150 mA 1.8 V 2.6V @ 500 mA | 150 mA | 8 pF | 200 MHz @ 50 mA | 110 nS |
| 2N2906A and PN2906A | TO18 TO92 | 60V | 60V | 5V | 10 nA @ 50V | 40 @ 0.1 mA/10V 40 @ 1 mA/10V 40 @ 10 mA/10V 40-120 @ 150 mA/10V 40 @ 500 mA/10V | 0.4 V 1.3V @ 150 mA 1.8 V 2.6V @ 500 mA | 150 mA | 8 pF | 200 MHz @ 50 mA | 100 nS |

GENERAL PURPOSE AMPLIFIERS AND HIGH-SPEED SWITCHES

PNP TRANSISTORS

| TYPE | CASE STYLE | V_{CB0} Min | V_{CE0} Min | V_{EB0} Min | I_{CB0} @ V_{CB} Max | h_{FE} @ I_C & V_{CE} Min-Max | $V_{CE(sat)}$ & $V_{BE(sat)}$ Max & Max @ | I_C | C_{ob} Max | f_T @ I_C Min | t_{off} Max | |
|--|------------|------------------|------------------|------------------|-------------------------------|--|---|-------|-----------------|----------------------|------------------|--|
| 2N2907 and A5T2907 and PN2907 | TO18 | 60V | 40V | 5V | 20 nA @ 50V | 35 @ 0.1 mA/10V | 0.4 V & 1.3V @ 150 mA 1.6 V & 2.6V @ 500 mA | | 8 pF | 200 MHz @ 50 mA | 110 nS | |
| | TO92-38 | | | | | 50 @ 1 mA/10V | | | | | | |
| | TO92 | | | | | 75 @ 10 mA/10V 100-300 @ 150 mA/10V 30 @ 500 mA/10V | | | | | | |
| 2N2907A and PN2907A | TO18 | 60V | 60V | 5V | 10 nA @ 50V | 75 @ 0.1 mA/10V | 0.4 V & 1.3V @ 150 mA 1.6 V & 2.6V @ 500 mA | | 8 pF | 200 MHz @ 50 mA | 100 nS | |
| | TO92 | | | | | 100 @ 1 mA/10V 100 @ 10 mA/10V 100-300 @ 150 mA/10V 50 @ 500 mA/10V | | | | | | |
| | | | | | | | | | | | | |
| MPS3638 and A5T3638 | TO92 | 25V | 25V | 4V | 35 nA @ 15V | 20 @ 10 mA/10V | 0.25 V & 1.1V @ 50 mA 1.0 V & 2.0V @ 300 mA | | 20 pF | 100 MHz @ 50 mA | 170 nS | |
| | TO92-38 | | | | | 30 @ 50 mA/ 1V 20 @ 300 mA/ 2V | | | | | | |
| MPS3638A and A5T3638B | TO92 | 25V | 25V | 4V | 35 nA @ 15V (I_{CES}) | 80 @ 1 mA/10V | 0.25 V & 1.1V @ 50 mA 1.0 V & 2.0V @ 300 mA | | 10 pF | 150 MHz @ 50 mA | 170 nS | |
| | TO92-38 | | | | | 100 @ 10 mA/10V 100 @ 50 mA/ 1V 20 @ 300 mA/ 2V | | | | | | |
| A5T3644 and PN3644 and MPS3644 | TO92-38 | 45V | 45V | 5V | 35 nA @ 30V (I_{CES}) | 40 @ 0.1 mA/10V | 0.25 V & 1.0V @ 50 mA 0.4 V & 1.3V @ 150 mA 1.0 V & 2.0V @ 300 mA | | 8 pF | 200 MHz @ 20 mA | 100 nS | |
| | TO92 | | | | | 80 @ 1 mA/10V | | | | | | |
| | | | | | | | | | | | | 100 @ 10 mA/10V 80-240 @ 50 mA/ 1V 100-300 @ 150 mA/10V 20 @ 300 mA/ 2V |
| A5T3645 and MPS3645 and PN3645 | TO92-38 | 60V | 60V | 5V | 35 nA @ 50V (I_{CES}) | 40 @ 0.1 mA/10V | 0.25 V & 1.0V @ 50 mA 0.4 V & 1.3V @ 150 mA 1.0 V & 2.0V @ 300 mA | | 8 pF | 200 MHz @ 20 mA | 100 nS | |
| | TO92 | | | | | 80 @ 1 mA/10V | | | | | | |
| | | | | | | | | | | | | 100 @ 10 mA/10V 80-240 @ 50 mA/ 1V 100-300 @ 150 mA/10V 20 @ 300 mA/ 2V |
| | | | | | | | | | | | | |
| 2N3905 and A5T3905 | TO92 | 40V | 40V | 5V | 50 nA @ 30V (I_{CEX}) | 30 @ 0.1 mA/ 1V | 0.25 V & 0.85V @ 10 mA 0.4 V & 0.95V @ 50 mA | | 4.5 pF | 200 MHz @ 10 mA | 260 nS | |
| | TO92-38 | | | | | 40 @ 1 mA/ 1V 50-150 @ 10 mA/ 1V 30 @ 50 mA/ 1V 15 @ 100 mA/ 1V | | | | | | |
| 2N3906 and A5T3906 | TO92 | 40V | 40V | 5V | 50 nA @ 30V (I_{CEX}) | 60 @ 0.1 mA/ 1V | 0.25 V & 0.85V @ 10 mA 0.4 V & 0.95V @ 50 mA | | 4.5 pF | 250 MHz @ 10 mA | 300 nS | |
| | TO92-38 | | | | | 80 @ 1 mA/ 1V 100-300 @ 10 mA/ 1V 60 @ 50 mA/ 1V 30 @ 100 mA/ 1V | | | | | | |
| 2N4125 and A5T4125 | TO92 | 30V | 30V | 4V | 50 nA @ 20V (I_{CEX}) | 50-150 @ 2 mA/ 1V | 0.4 V & 0.95V @ 50 mA | | 4.5 pF | 200 MHz @ 10 mA | | |
| | TO92-38 | | | | | 25 @ 50 mA/ 1V | | | | | | |
| 2N4126 and A5T4126 | TO92 | 25V | 25V | 4V | 50 nA @ 20V (I_{CEX}) | 120-360 @ 2 mA/ 1V | 0.4 V & 0.95V @ 50 mA | | 4.5 pF | 250 MHz @ 10 mA | | |
| | TO92-38 | | | | | 60 @ 50 mA/ 1V | | | | | | |
| PN4142 | TO92 | 60V | 40V | 5V | 50 nA @ 30V | 20 @ 0.1 mA/10V | 0.4 V & 1.3V @ 150 mA | | 8 pF | 200 MHz @ 50 mA | | |
| | | | | | | 25 @ 1 mA/10V | | | | | | |
| | | | | | | 35 @ 10 mA/10V | | | | | | |
| | | | | | | 20 @ 150 mA/ 1V | | | | | | |
| | | | | | | 40-120 @ 150 mA/10V | | | | | | |
| | | | | | | 20 @ 500 mA/ 1V | | | | | | |
| PN4143 | TO92 | 60V | 40V | 5V | 50 nA @ 30V | 35 @ 0.1 mA/10V | 0.4 V & 1.3V @ 150 mA | | 8 pF | 200 MHz @ 50 mA | | |
| | | | | | | 50 @ 1 mA/10V | | | | | | |
| | | | | | | 75 @ 10 mA/10V | | | | | | |
| | | | | | | 50 @ 150 mA/ 1V | | | | | | |
| | | | | | | 100-300 @ 150 mA/10V | | | | | | |
| | | | | | | 30 @ 500 mA/ 1V | | | | | | |
| PN4228 | TO92 | 60V | 40V | 5V | 50 nA @ 30V | 25 @ 0.1 mA/10V | 0.4 V & 1.3V @ 150 mA | | 8 pF | 200 MHz @ 50 mA | | |
| | | | | | | 50 @ 10 mA/10V | | | | | | |
| | | | | | | 30 @ 150 mA/ 1V | | | | | | |
| | | | | | | 75-150 @ 150 mA/10V | | | | | | |
| | | | | | | 20 @ 500 mA/ 1V | | | | | | |
| | | | | | | | | | | | | |
| 2N4402 and A5T4402 | TO92 | 40V | 40V | 5.0V | 100 nA @ 35V (I_{CEX}) | 30 @ 1 mA/ 1V | 0.4 V & 0.95V @ 150 mA 0.75 V & 1.3V @ 500 mA | | 85 pF | 150 MHz @ 20 mA | 255 nS | |
| | TO92-38 | | | | | 50 @ 10 mA/ 1V | | | | | | |
| | | | | | | | | | | | | 50-150 @ 150 mA/ 2V |
| | | | | | | | | | | | | 20 @ 500 mA/ 2V |
| 2N4403 and A5T4403 | TO92 | 40V | 40V | 5.0V | 100 nA @ 35V (I_{CEX}) | 30 @ 0.1 mA/ 1V | 0.4 V & 0.95V @ 150 mA 0.75 V & 1.3V @ 500 mA | | 85 pF | 200 MHz @ 20 mA | 255 nS | |
| | TO92-38 | | | | | 60 @ 1 mA/ 1V | | | | | | |
| | | | | | | | | | | | | 100 @ 10 mA/ 1V |
| | | | | | | | | | | | | 100-300 @ 150 mA/ 2V |
| | | | | | | | | | | | | 20 @ 500 mA/ 2V |
| PN5142 | TO92 | 20V | 20V | 4V | 50 nA @ 12V (I_{CEX}) | 30 @ 50 mA/ 1V 15 @ 300 mA/10V | 0.5 V & 1.5V @ 50 mA 2 V & 2.5V @ 300 mA | | 10 pF | 100 MHz @ 50 mA | | |
| PN5143 | TO92 | 20V | 20V | 4V | 50 nA @ 12V (I_{CEX}) | 30 @ 50 mA/ 1V 15 @ 300 mA/10V | 0.5 V & 1.5V @ 50 mA 2 V & 2.5V @ 300 mA | | 10 pF | 100 MHz @ 50 mA | | |
| 2N5447 | TO92-38 | 40V | 25V | 5V | 100 nA @ 20V | 60-300 @ 50 mA/ 5V | 0.25 V & 1.0V @ 50 mA | | 12 pF | 100 MHz @ 50 mA | | |

GENERAL PURPOSE AMPLIFIERS AND HIGH-SPEED SWITCHES

| TYPE | CASE STYLE | BV _{CB0} Min | BV _{CEO} Min | BV _{EBO} Min | I _{CB0} @ V _{CB} Max | h _{FE} @ I _C & V _{CE} Min-Max | V _{CE(sat)} & V _{BE(sat)} Max & Max ^e | I _C | C _{ob} Max | f _T @ I _C Min | t _{off} Max |
|---------|------------|--------------------------|--------------------------|--------------------------|---|--|---|----------------|------------------------|--|-------------------------|
| 2N5448 | TO92-38 | 50V | 30V | 5V | 100nA @ 20V | 30-150 @ 50mA/ 5V | 0.25 V 1.0V @ 50mA | 12 pF | 100 MHz @ 50mA | | |
| MPS8516 | TO92 | 40V | 40V | 4V | 50nA @ 30V | 50-100 @ 2mA/10V 30 @ 100mA/10V | 0.5 V @ 50mA | 4 pF | | | |
| MPS8517 | TO92 | 40V | 40V | 4V | 50nA @ 30V | 90-180 @ 2mA/10V 60 @ 100mA/10V | 0.5 V @ 50mA | 4 pF | | | |
| MPS8518 | TO92 | 40V | 40V | 4V | 50nA @ 30V | 150-300 @ 2mA/10V 90 @ 100mA/10V | 0.5 V @ 50mA | 4 pF | | | |
| MPS8519 | TO92 | 25V | 25V | 4V | 50nA @ 20V | 250-500 @ 2mA/10V 150 @ 100mA/10V | 0.5 V @ 50mA | 4 pF | | | |
| MPS8533 | TO92 | 40V | 40V | 4V | 50nA @ 30V | 30 @ 10mA/ 1V 40-120 @ 100mA/ 1V 25 @ 500mA/ 1V | 0.5 V 1 V @ 100mA | 6 pF | | | |
| MPS8534 | TO92 | 40V | 40V | 4V | 50nA @ 30V | 60 @ 10mA/ 1V 90-270 @ 100mA/ 1V 50 @ 500mA/10V | 0.3 V 1 V @ 100mA | 6 pF | | | |
| MPS8535 | TO92 | 30V | 30V | 4V | 100nA @ 20V | 30 @ 100mA/ 1V | 0.5 V 1.2V @ 100mA | 6 pF | | | |
| TIS112 | TO92-38 | 60V | 40V | 5V | 20nA @ 50V | 35 @ 0.1mA/10V 50 @ 1mA/10V 75 @ 10mA/10V 100-300 @ 150mA/10V 30 @ 500mA/10V | 0.4 V 1.3V @ 150mA 1.6 V 2.6V @ 500mA | 8 pF | 200 MHz @ 30mA | 140 nS | |

SATURATED SWITCHES

PNP TRANSISTORS

| TYPE | CASE STYLE | BV _{CB0} Min | BV _{CEO} Min | BV _{EBO} Min | I _{CB0} @ V _{CB} Max | h _{FE} @ I _C & V _{CE} Min-Max | V _{CE(sat)} & V _{BE(sat)} Max & Max ^e | I _C | C _{ob} Max | f _T @ I _C Min | t _{off} @ I _C Max |
|---------------------|--------------|--------------------------|--------------------------|--------------------------|---|---|---|----------------|------------------------|--|--|
| 2N3250 and PN3250 | TO18 TO92 | 50V | 40V | 5V | 20nA @ 40V ('CEX) | 40 @ 0.1mA/ 1V 45 @ 1mA/ 1V 50-150 @ 10mA/ 1V 15 @ 50mA/ 1V | 0.25 V 0.9V @ 10mA 0.5 V 1.2V @ 50mA | 6 pF | 250 MHz @ 10mA | 225 nS @ 10mA | |
| 2N3250A and PN3250A | TO18 TO92 | 60V | 60V | 5V | 20nA @ 40V ('CEX) | 40 @ 0.1mA/ 1V 45 @ 1mA/ 1V 50-150 @ 10mA/ 1V 15 @ 50mA/ 1V | 0.25 V 0.9V @ 10mA 0.5 V 1.2V @ 50mA | 6 pF | 250 MHz @ 10mA | 225 nS @ 10mA | |
| 2N3251 and PN3251 | TO18 TO92 | 50V | 40V | 5V | 20nA @ 40V ('CEX) | 80 @ 0.1mA/ 1V 90 @ 1mA/ 1V 100-300 @ 10mA/ 1V 30 @ 50mA/ 1V | 0.25 V 0.9V @ 10mA 0.5 V 1.2V @ 50mA | 6 pF | 300 MHz @ 10mA | 250 nS @ 10mA | |
| 2N3251A and PN3251A | TO18 TO92 | 60V | 60V | 5V | 20nA @ 40V ('CEX) | 80 @ 0.1mA/ 1V 90 @ 1mA/ 1V 100-300 @ 10mA/ 1V 30 @ 50mA/ 1V | 0.25 V 0.9V @ 10mA 0.5 V 1.2V @ 50mA | 6 pF | 300 MHz @ 10mA | 250 nS @ 10mA | |
| 2N5771 | TO92 | 15V | 4.5V | 15V | 10nA @ 8V | 35 @ 1mA/0.5V 50-120 @ 10mA/0.3V 40 @ 50mA/ 1V | 0.18 V 0.95V @ 10mA | 3.0 pF | | 20 ns | |
| PN5910 | TO92 | 20V | 4.5V | 20V | 10nA @ 10V ('CES) | 15 @ 1mA/0.5V 30-120 @ 10mA/0.3V 30 @ 50mA/ 1V | 0.15 V 0.95V @ 10mA | 3.0 pF | | 20 ns | |
| MPS3839 | TO92 | 6V | 6V | 4V | 10nA @ 3V ('CES) | 30-120 @ 10mA/0.3V 20 @ 50mA/ 1V | 0.18 V 1.0V @ 10mA 0.5 V 1.5V @ 50mA | 3.5 pF | 500 MHz @ 10mA | 60 nS @ 10mA | |
| MPS3840 | TO92 | 12V | 12V | 4V | 10nA @ 6V ('CES) | 30-120 @ 10mA/0.3V 20 @ 50mA/ 1V | 0.2 V 1 V @ 10mA 0.6 V 1.5V @ 50mA | 3.5 pF | 500 MHz @ 10mA | 35 nS @ 50mA | |
| 2N5228 | TO92 | 5V | 5V | 3V | 100nA @ 4V ('CES) | 30 @ 10mA/0.3V 15 @ 50mA/ 1V | 0.4 V 1.25V @ 10mA | 6 pF | 300 MHz @ 10mA | 140 nS @ 100mA | |

RF-IF AMPLIFIERS AND OSCILLATORS

PNP TRANSISTORS

| TYPE | CASE STYLE | BV _{CB0} Min | BV _{CEO} Min | BV _{EBO} Min | I _{CB0} @ V _{CB} Max | h _{FE} @ I _C & V _{CE} Min-Max | V _{CE(sat)} & V _{BE(sat)} Max & Max ^e | I _C | C _{ob} Max | f _T @ I _C Min | NF @ Freq Max |
|--------|------------|--------------------------|--------------------------|--------------------------|---|---|---|----------------|------------------------|--|------------------|
| PN4916 | TO92 | 30V | 30V | 5V | 25nA @ 15V ('CES) | 40 @ 0.1mA/ 1V 60 @ 1mA/ 1V 70-200 @ 10mA/ 1V 15 @ 50mA/ 1V | 0.13 V 0.75V @ 1mA 0.14 V 0.9V @ 10mA 0.3 V 1.1V @ 50mA | 4.5 pF | 400 MHz @ 10mA | 6 dB @ 100 MHz | |
| PN4917 | TO92 | 30V | 30V | 5V | 25nA @ 15V ('CES) | 100 @ 0.1mA/ 1V 150 @ 1mA/ 1V 150-300 @ 10mA/ 1V 30 @ 50mA/ 1V | 0.13 V 0.75V @ 1mA 0.14 V 0.9V @ 10mA 0.3 V 1.1V @ 50mA | 4.5 pF | 450 MHz @ 10mA | 6 dB @ 100 MHz | |
| MPSH54 | TO92 | 80V | 80V | 4V | 50nA @ 60V | 30-120 @ 1.5mA/10V | 0.25 V @ 10mA | 1.6 pF | 80 MHz @ 1.5mA | 2 dB @ 1 MHz | |
| MPSH55 | TO92 | 80V | 80V | 4V | 50nA @ 60V | 30-150 @ 1.5mA/10V | 0.25 V @ 10mA | 1.6 pF | 80 MHz @ 1.5mA | 2 dB @ 1 MHz | |

MEDIUM POWER AMPLIFIERS

PNP TRANSISTORS

| TYPE | CASE STYLE | V_{CB0} Min | V_{CE0} Min | V_{EB0} Min | I_{CB0} @ V_{CB} Max | h_{FE} @ I_C & V_{CE} Min-Max | $V_{CE(sat)}$ & $V_{BE(sat)}$ Max | I_C | C_{ob} Max | f_T @ I_C Min | t_{off} Max |
|---------|------------|------------------|------------------|------------------|-----------------------------|---|--|-------|-----------------|----------------------|------------------|
| MPS4354 | TO92 | 60V | 60V | 5V | 50 nA @ 50V | 25 @ 0.1 mA/10V 40 @ 1 mA/10V 50-500 @ 10 mA/10V 40 @ 100 mA/10V 30 @ 500 mA/10V | 0.15 V 0.9 V @ 150 mA 0.5 V 1.1 V @ 500 mA | | 30 pF | 100 MHz @ 50 mA | 400 nS |
| MPS4355 | TO92 | 60V | 60V | 5V | 50 nA @ 50V | 60 @ 0.1 mA/10V 75 @ 1 mA/10V 100-400 @ 10 mA/10V 75 @ 100 mA/10V 75 @ 500 mA/10V | 0.15 V 0.9 V @ 150 mA 0.5 V 1.1 V @ 500 mA 1.0 V 1.2 V @ 1000 mA | | 30 pF | 100 MHz @ 50 mA | 400 nS |
| MPS4356 | TO92 | 80V | 80V | 5V | 50 nA @ 50V | 25 @ 0.1 mA/10V 40 @ 1 mA/10V 50-250 @ 10 mA/10V 40 @ 100 mA/10V 30 @ 500 mA/10V | 0.15 V 0.9 V @ 150 mA 0.5 V 1.1 V @ 500 mA | | 30 pF | 100 MHz @ 50 mA | 400 nS |
| MPS6562 | TO92 | 25V | 25V | 5V | 100 nA @ 20V | 35 @ 10 mA/ 1V 50 @ 100 mA/ 1V 50-200 @ 500 mA/ 1V | 0.5 V 1.2 V @ 500 mA | | 30 pF | 60 MHz @ 10 mA | |
| MPS6563 | TO92 | 20V | 20V | 5V | 100 nA @ 20V | 35 @ 10 mA/ 1V 50 @ 100 mA/ 1V 50-200 @ 500 mA/ 1V | 0.5 V 1.2 V @ 350 mA | | 30 pF | 60 MHz @ 10 mA | |
| MPSA55 | TO92 | 60V | 60V | 4V | 100 nA @ 60V | 50 @ 10 mA/ 1V 50 @ 100 mA/ 1V | 0.25 V 1.2 V @ 100 mA | | | 50 MHz @ 100 mA | |
| MPSA56 | TO92 | 80V | 80V | 4V | 100 nA @ 80V | 50 @ 10 mA/ 1V 50 @ 100 mA/ 1V | 0.25 V 1.2 V @ 100 mA | | | 50 MHz @ 100 mA | |
| TIS93 | TO92-38 | 40V | 40V | 5V | 100 nA @ 20V | 100-300 @ 50 mA/ 2V | 0.25 V 1.0 V @ 50 mA | | | | |

LOW LEVEL AMPLIFIERS

PNP TRANSISTORS

| TYPE | CASE STYLE | V_{CB0} Min | V_{CE0} Min | V_{EB0} Min | I_{CB0} @ V_{CB} Max | h_{FE} @ I_C & V_{CE} Min-Max | $V_{CE(sat)}$ & $V_{BE(sat)}$ Max | I_C | C_{ob} Max | f_T @ I_C Min | N.F. @ I_C/R_G Max & f |
|---------|------------|------------------|------------------|------------------|-----------------------------|--|---------------------------------------|-------|-----------------|----------------------|---|
| PN4248 | TO92 | 40V | 40V | 5V | 10 nA @ 40V | 50 @ 100 μ A/ 5V 50 @ 1 mA/ 5V 50 @ 10 mA/ 5V | 0.25 V @ 10 mA | | 6 pF | | |
| PN4249 | TO92 | 60V | 60V | 5V | 10 nA @ 40V | 100-300 @ 100 μ A/ 5V 100 @ 1 mA/ 5V 100 @ 10 mA/ 5V | 0.25 V @ 10 mA | | 6 pF | | 3 dB@20 μ A/10k Ω & 15.7 kHz 3 dB@20 μ A/10k Ω & 1 kHz 3 dB@250 μ A/1k Ω & 1 kHz |
| PN4250 | TO92 | 40V | 40V | 5V | 10 nA @ 40V | 250-700 @ 100 μ A/ 5V 250 @ 1 mA/ 5V 250 @ 10 mA/ 5V | 0.25 V @ 10 mA | | 6 pF | | 2 dB@20 μ A/10k Ω & 15.7 kHz 2 dB@20 μ A/10k Ω & 1 kHz 2 dB@250 μ A/1k Ω & 1 kHz |
| PN4250A | TO92 | 60V | 60V | 5V | 10 nA @ 50V | 250-700 @ 100 μ A/ 5V | 0.25 V @ 10 mA | | 6 pF | | 2 dB@20 μ A/10k Ω & 15.7 kHz 2 dB@20 μ A/10k Ω & 1 kHz 2 dB@250 μ A/1k Ω & 1 kHz |
| 2N5086 | TO92 | 60V | 50V | 3V | 50 nA @ 35V | 150-500 @ 100 μ A/ 5V 150 @ 1 mA/ 5V 150 @ 10 mA/ 5V | 0.3 V @ 10 mA | | 4 pF | 40 MHz @ 0.5 mA | 3 dB@100 μ A/3k Ω & 1 kHz 3 dB@20 μ A/10k Ω & 15.7 kHz |
| 2N5087 | TO92 | 60V | 50V | 3V | 50 nA @ 35V | 250-800 @ 100 μ A/ 5V 250 @ 1 mA/ 5V 250 @ 10 mA/ 5V | 0.3 V @ 10 mA | | 4 pF | 40 MHz @ 0.5 mA | 2 dB@100 μ A/3k Ω & 1 kHz 2 dB@100 μ A/10k Ω & 15.7 kHz |
| 2N5227 | TO92 | 30V | 30V | 3V | 100 nA @ 10V | 30 @ 100 μ A/10V 50-700 @ 2 mA/10V | 0.4 V 1V @ 10 mA | | 5 pF | 100 MHz @ 10 mA | |
| MPS6522 | TO92 | 25V | 25V | 4V | 50 nA @ 20V | 100 @ 100 μ A/10V 200-400 @ 2 mA/10V | 0.5 V @ 50 mA | | 3.5 pF | | 3 dB@10 μ A/10k Ω & 15.7 kHz |
| MPS6523 | TO92 | 25V | 25V | 4V | 50 nA @ 20V | 150 @ 100 μ A/10V 300-600 @ 2 mA/10V | 0.5 V @ 50 mA | | 3.5 pF | | 3 dB@10 μ A/10k Ω & 15.7 kHz |
| 2N5356 | TO92-2 | 25V | 25V | 4V | 100 nA @ 25V | 250-500 @ 50 mA/ 1V | 0.25 V 0.8 V @ 2 mA 0.25 V @ 50 mA | | 8 pF | | |