

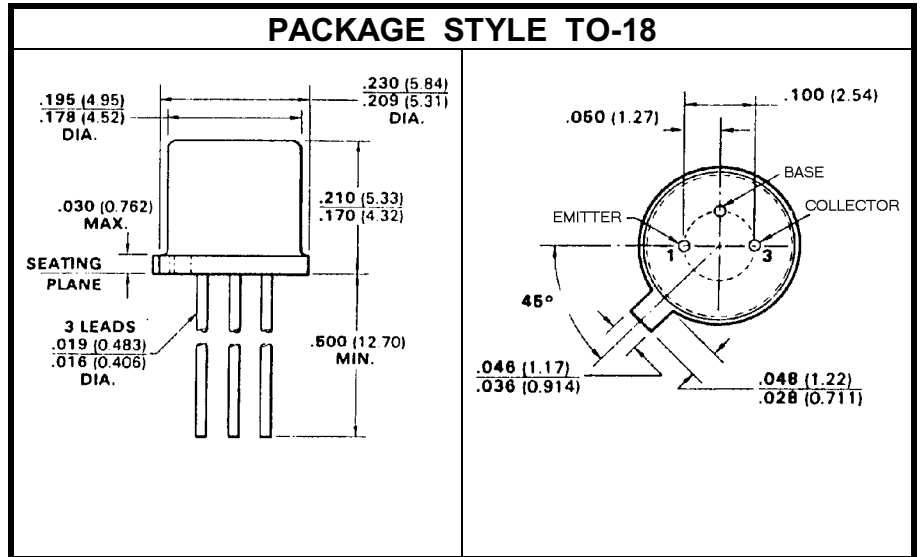
SILICON PNP TRANSISTOR

DESCRIPTION:

The **2N2907A** is Designed for General Purpose Amplifier and Switching Applications.

MAXIMUM RATING:

| | |
|---------------|---|
| I_C | 600 mA |
| V_{CE} | -60 V |
| P_{DISS} | 1.8 W @ $T_C = 25^\circ\text{C}$ |
| T_J | -65 $^\circ\text{C}$ to +200 $^\circ\text{C}$ |
| T_{STG} | -65 $^\circ\text{C}$ to +200 $^\circ\text{C}$ |
| θ_{JC} | 97 $^\circ\text{C/W}$ |


CHARACTERISTICS $T_C = 25^\circ\text{C}$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|---------------|--|-------------------------------|---------|--------------|---------------|
| BV_{CEO} | $I_C = 10\text{ mA}$ | -60 | | | V |
| BV_{CBO} | $I_C = 10\ \mu\text{A}$ | -60 | | | V |
| I_{CBO} | $V_{CB} = -50\text{ V}$ $T_C = 25^\circ\text{C}$ $T_C = 150^\circ\text{C}$ | | | 0.01 10 | μA |
| I_{CEX} | $V_{CE} = -30\text{ V}$ $V_{BE} = 0.5\text{ V}$ | | | 50 | nA |
| I_B | $V_{CE} = -30\text{ V}$ $V_{BE} = 0.5\text{ V}$ | | | 50 | nA |
| BV_{EBO} | $I_E = 10\ \mu\text{A}$ | -5.0 | | | V |
| h_{FE} | $V_{CE} = -10\text{ V}$ $I_C = 100\ \mu\text{A}$ $I_C = 1.0\text{ mA}$ $I_C = 10\text{ mA}$ $I_C = 150\text{ mA}$ $I_C = 500\text{ mA}$ | 75 100 100 100 50 | 300 | | --- |
| $V_{CE(SAT)}$ | $I_C = 150\text{ mA}$ $I_B = 15\text{ mA}$ $I_C = 500\text{ mA}$ $I_B = 50\text{ mA}$ | | | -0.4 -1.6 | V |
| $V_{BE(SAT)}$ | $I_C = 150\text{ mA}$ $I_B = 15\text{ mA}$ $I_C = 500\text{ mA}$ $I_B = 50\text{ mA}$ | | | -1.3 -2.6 | V |

**DYNAMIC CHARACTERISTICS** $T_c = 25^\circ\text{C}$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-----------|---|---------|---------|---------|------------|
| f_t | $V_{CE} = -20\text{ V}$ $I_C = 50\text{ mA}$ $f = 100\text{ MHz}$ | 200 | | | MHz |
| C_{ob} | $V_{CB} = -10\text{ V}$ $f = 100\text{ KHz}$ | | | 8.0 | pF |
| C_{ib} | $V_{EB} = -2.0\text{ V}$ $f = 100\text{ KHz}$ | | | 30 | pF |
| t_{on} | $V_{CC} = -30\text{ V}$ $I_C = 150\text{ mA}$ $I_{B1} = 15\text{ mA}$ | | | 45 | nS |
| t_d | $V_{CC} = -30\text{ V}$ $I_C = 150\text{ mA}$ $I_{B1} = 15\text{ mA}$ | | | 10 | nS |
| T_r | $V_{CC} = -30\text{ V}$ $I_C = 150\text{ mA}$ $I_{B1} = 15\text{ mA}$ | | | 40 | nS |
| t_{off} | $V_{CC} = -6.0\text{ V}$ $I_C = 150\text{ mA}$ $I_{B1} = I_{B2} = 15\text{ mA}$ | | | 100 | nS |
| t_s | $V_{CC} = -6.0\text{ V}$ $I_C = 150\text{ mA}$ $I_{B1} = I_{B2} = 15\text{ mA}$ | | | 80 | nS |
| t_f | $V_{CC} = -6.0\text{ V}$ $I_C = 150\text{ mA}$ $I_{B1} = I_{B2} = 15\text{ mA}$ | | | 30 | nS |