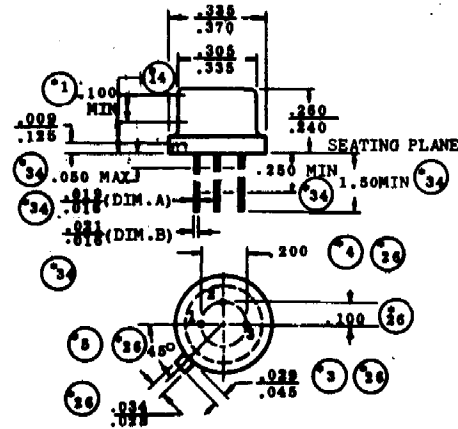


2N5096

HIGH VOLTAGE PNP TRANSISTOR



FEATURES

- LOW SATURATION VOLTAGE
- LOW LEAKAGE AT HIGH TEMPERATURE
- CECC SCREENING OPTIONS
- SPACE QUALITY LEVELS OPTIONS

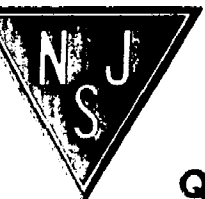
TO-5

Underside View

PIN 1 – Emitter PIN 2 – Base PIN 3 – Collector

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)

| | | |
|------------------|---|--------------|
| V _{CER} | Collector-Base Voltage (R _{BE} = 1K) | 500V |
| V _{CEO} | Collector-Emitter Voltage (I _B = 0V) | 450V |
| V _{CBO} | Collector Base Voltage (I _E = 0V) | 500V |
| I _C | Collector Current | 1A |
| I _B | Base Current | 0.5A |
| P _{tot} | Total Dissipation @ Tamb = 25°C | 2W |
| | Derate Above 100°C | 20mW/°C |
| T _j | Operating And Storage Junction Temperature | -65 to 200°C |



NJ Semi-Conductors reserves the right to change test conditions, parameters limits and package dimensions without notice information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

| Parameter | | Test Conditions | Min. | Typ. | Max. | Unit |
|-----------------|--------------------------------------|-------------------------------------|------|------|------|------|
| BV_{CEO}^* | Collector Emitter Breakdown Voltage | $I_C=50mA$ | 450 | | | V |
| BV_{CER}^* | Collector Emitter Breakdown Voltage | $I_C=100\mu A$ $R_{BE} = 1K$ | 500 | | | |
| BV_{CBO} | Collector Base Breakdown Voltage | $I_C=100\mu A$ | 500 | | | |
| BV_{EBO} | Emitter Base Breakdown Voltage | $I_E=20\mu A$ | 6 | | | nA |
| I_{CBO} | Collector Cutoff Current | $V_{CB}=500V$ | | | 500 | |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}=4V$ | | | 250 | |
| h_{FE}^* | DC Current Gain | $I_C=1mA$ $V_{CE}=10V$ | 20 | | 200 | |
| | | $I_C=25mA$ $V_{CE}=10V$ | 40 | | 250 | |
| | | $I_C=100mA$ $V_{CE}=15V$ | 20 | | 200 | |
| $V_{CE(SAT)}^*$ | Collector Emitter Saturation Voltage | $I_C=25mA$ $I_B=2.5mA$ | | | 3.0 | V |
| $V_{BE(SAT)}^*$ | Base Emitter Saturation Voltage | $I_C=25mA$ $I_B=2.5mA$ | | | 1.0 | |
| f_T | Current Gain Bandwidth Product | $I_C=10mA$ $V_{CE}=20V$ $f=5MHz$ | 20 | | | MHz |

SWITCHING TIMES ($T_{case} = 25^{\circ}C$ unless otherwise stated)

| Parameter | | Test Conditions | Min. | Typ. | Max. | Unit |
|-----------|--------------|--|------|------|------|---------|
| t_d | Delay Time | $V_{CC}=150V$ $I_C=100mA$ $I_{B1}=I_{B2}=10mA$ | | | 700 | ns |
| t_r | Rise Time | | | | 1500 | |
| t_s | Storage Time | | | | 3 | μS |
| t_f | Fall Time | | | | 200 | ns |