

Silicon PNP Power Transistor

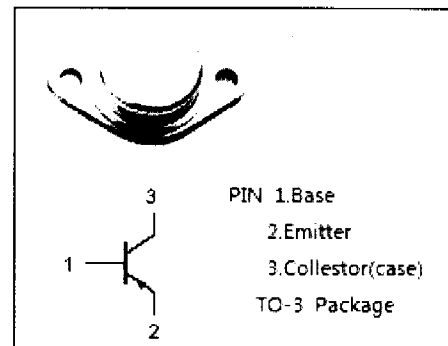
2SB554

DESCRIPTION

- High Power Dissipation-
: $P_C = 150W @ T_C = 25^\circ C$
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 180V(\text{Min})$
- Complement to Type 2SD424

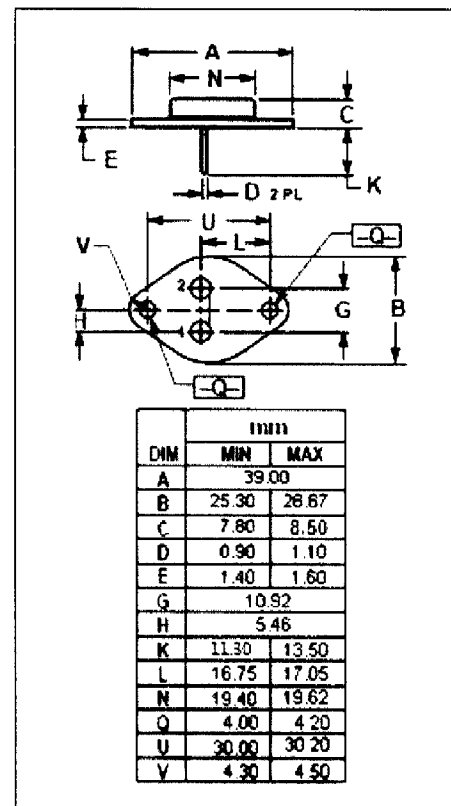
APPLICATIONS

- Designed for power amplifier ,DC-DC converter and regulator applications.

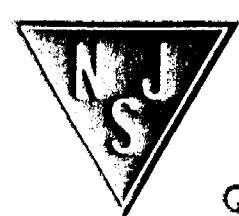


ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ C$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|------------|
| V_{CBO} | Collector-Base Voltage | -180 | V |
| V_{CEO} | Collector-Emitter Voltage | -180 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -15 | A |
| I_B | Base Current-Continuous | 1.5 | A |
| P_C | Collector Power Dissipation @ $T_C = 25^\circ C$ | 150 | W |
| T_J | Junction Temperature | 150 | $^\circ C$ |
| T_{stg} | Storage Temperature | -55~150 | $^\circ C$ |



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ELECTRICAL CHARACTERISTICS

$T_C=25^\circ\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|---|------|------|------|------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C=30\text{mA}; I_B=0$ | -180 | | | V |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage | $I_E=1\text{mA}; I_C=0$ | -5 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=10\text{A}; I_B=1\text{A}$ | | | -3.0 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C=10\text{A}; V_{CE}=5\text{V}$ | | | -2.5 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB}=90\text{V}; I_E=0$ | | | -0.1 | mA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}=5\text{V}; I_C=0$ | | | -0.1 | mA |
| h_{FE} | DC Current Gain | $I_C=2\text{A}; V_{CE}=5\text{V}$ | 40 | | 140 | |
| f_T | Current-Gain—Bandwidth Product | $I_C=2\text{A}; V_{CE}=5\text{V}$ | | 5 | | MHz |
| C_{OB} | Output Capacitance | $I_E=0; V_{CB}=10\text{V}; f=1\text{MHz}$ | | 300 | | pF |

◆ h_{FE-2} Classifications

| | |
|-------|--------|
| R | O |
| 40-80 | 70-140 |