

isc Silicon NPN Power Transistor

2SD753

DESCRIPTION

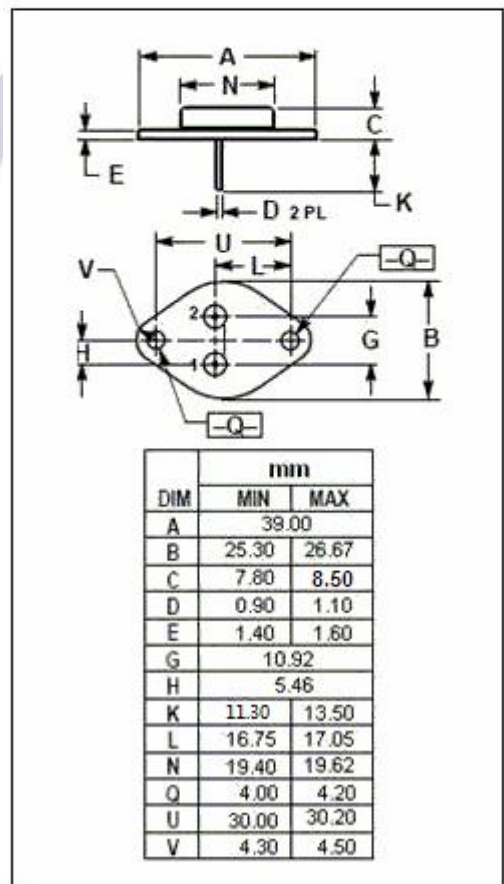
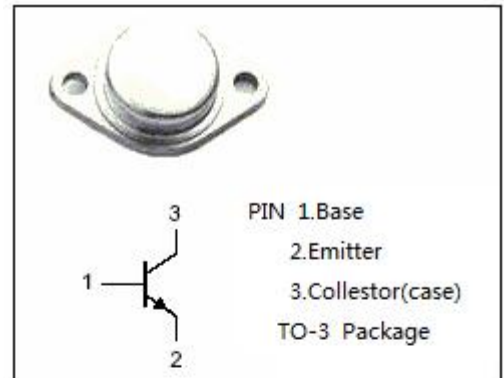
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 200V(\text{Min})$
- High Power Dissipation-
: $P_C = 150W(\text{Max})@T_C=25^\circ\text{C}$
- High Current Capability
- Complement to Type 2SB723
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifier applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 200 | V |
| V_{CEO} | Collector-Emitter Voltage | 200 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current-Continuous | 15 | A |
| I_B | Base Current-Continuous | 4 | A |
| P_C | Collector Power Dissipation @ $T_C=25^\circ\text{C}$ | 150 | W |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



isc Silicon NPN Power Transistor**2SD753****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 | $I_C= 25\text{mA}; I_B= 0$ | 200 | | | V |
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage | $I_C= 1\text{mA}; I_E= 0$ | 200 | | | 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 | $I_C= 2\text{A}; V_{CE}= 5\text{V}$ | | | 1.5 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB}= 200\text{V}; I_E= 0$ | | | 100 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}= 5\text{V}; I_C= 0$ | | | 100 | μA |
| h_{FE} | DC Current Gain | $I_C= 1\text{A}; V_{CE}= 5\text{V}$ | 35 | | 200 | |

◆ **h_{FE} Classifications**

| A | B | C |
|-------|--------|---------|
| 35-70 | 60-120 | 100-200 |