

isc Silicon NPN Power Transistor
2SD772
DESCRIPTION

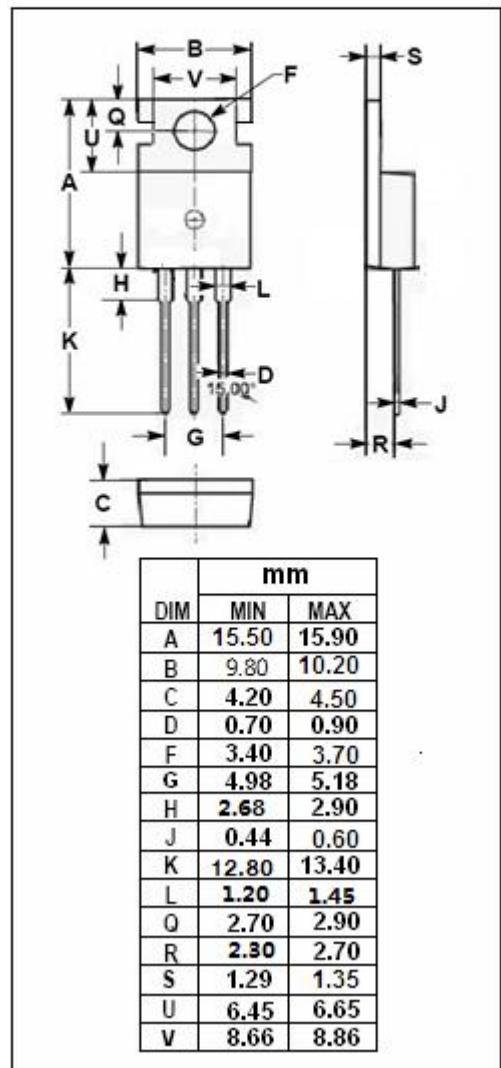
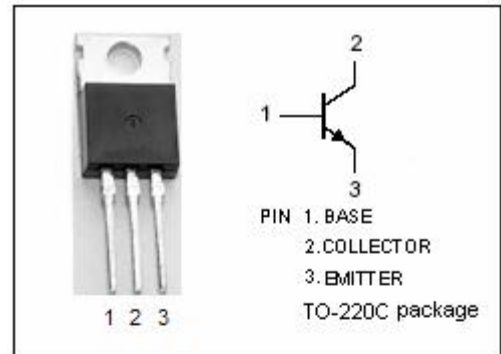
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 80V(\text{Min.})$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.6V(\text{Max.}) @ I_C = 5A$
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifier applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 150 | V |
| V_{CES} | Collector-Emitter Voltage | 150 | V |
| V_{CEO} | Collector-Emitter Voltage | 80 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current-Continuous | 5 | A |
| I_{CM} | Collector Current-Peak | 10 | A |
| P_C | Collector Power Dissipation @ $T_C = 25^\circ\text{C}$ | 40 | W |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



isc Silicon NPN Power Transistor**2SD772****ELECTRICAL CHARACTERISTICS**T_c=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{CEO(SUS)} | Collector-Emitter Sustaining Voltage | I _c = 30mA; L= 25mH | 80 | | | V |
| V _{(BR)EBO} | Emitter-Base Breakdown Voltage | I _E = 1mA; I _c = 0 | 6 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _c = 5A; I _B = 1A | | | 1.6 | V |
| V _{BE(on)} | Base-Emitter On Voltage | I _c = 5A; V _{CE} = 4V | | | 1.5 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = 150V; I _E = 0 | | | 1 | mA |
| h _{FE} | DC Current Gain | I _c = 5A; V _{CE} = 4V | 14 | | | |
| f _T | Current-Gain—Bandwidth Product | I _c = 0.5A; V _{CE} = 10V | | 40 | | MHz |
| t _f | Fall Time | I _c = 5A, I _{B1} = 0.8A; V _{EB} = 5V | | | 1 | μs |

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