

isc Silicon NPN Power Transistor
3DD200D
DESCRIPTION

- Excellent Safe Operating Area
- High DC Current Gain- $h_{FE}=15(\text{Min})@I_C = 8\text{A}$
- Low Saturation Voltage-
: $V_{CE(\text{sat})} = 1.4\text{V}(\text{Max})@I_C = 8\text{A}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

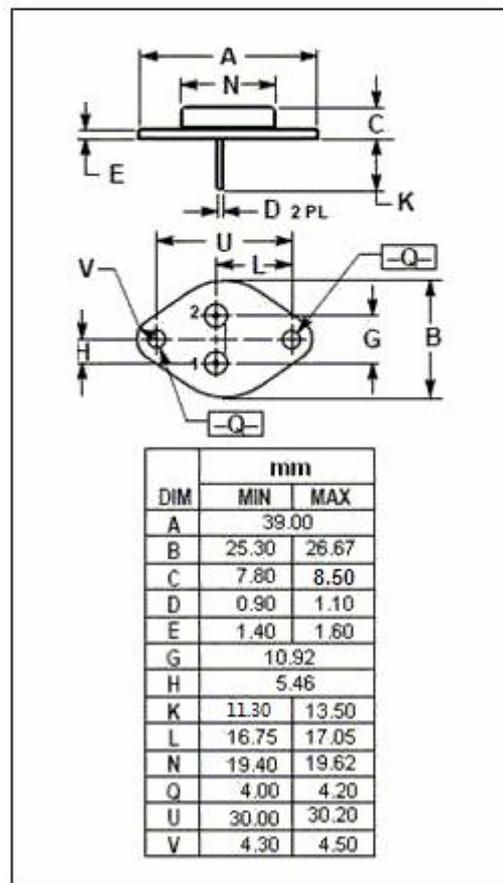
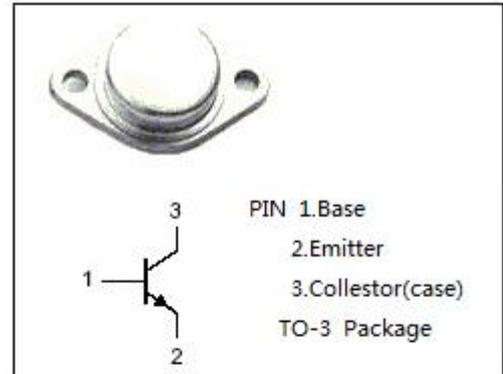
- Designed for high power audio ,disk head positioners and other linear applications, which can also be used in power switching circuits such as relay or solenoid drivers, DC-DC converters or inverters.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 250 | V |
| V_{CEO} | Collector-Emitter Voltage | 200 | V |
| V_{EBO} | Emitter-Base Voltage | 7 | V |
| I_C | Collector Current-Continuous | 20 | A |
| I_B | Base Current-Continuous | 4 | A |
| P_C | Collector Power Dissipation @ $T_C=25^\circ\text{C}$ | 200 | W |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature | -65~150 | $^\circ\text{C}$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--------------------------------------|------|---------------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 1.14 | $^\circ\text{C}/\text{W}$ |



isc Silicon NPN Power Transistor**3DD200D****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|------------------------|--------------------------------------|---|-----|-----|------|
| V _{CE0(SUS)} | Collector-Emitter Sustaining Voltage | I _C =30mA ; I _B =0 | 200 | | V |
| V _{CBO} | Collector- Base Sustaining Voltage | I _B =1mA ; I _E =0 | 250 | | V |
| V _{CE(sat)-1} | Collector-Emitter Saturation Voltage | I _C = 8A; I _B = 0.8A | | 1.4 | V |
| V _{CE(sat)-2} | Collector-Emitter Saturation Voltage | I _C = 20A; I _B = 3.2A | | 4.0 | V |
| V _{BE(on)} | Base-Emitter On Voltage | I _C = 8A ; V _{CE} = 4V | | 2.2 | V |
| I _{CEO} | Collector Cutoff Current | V _{CE} = 200V; I _B =0 | | 1 | mA |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = 7.0V; I _C =0 | | 0.1 | mA |
| h _{FE-1} | DC Current Gain | I _C = 8A ; V _{CE} = 4V | 15 | 60 | |
| h _{FE-3} | DC Current Gain | I _C = 20A ; V _{CE} = 4V | 5 | | |

NOTICE:

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