

isc Silicon NPN Power Transistor

BD637

DESCRIPTION

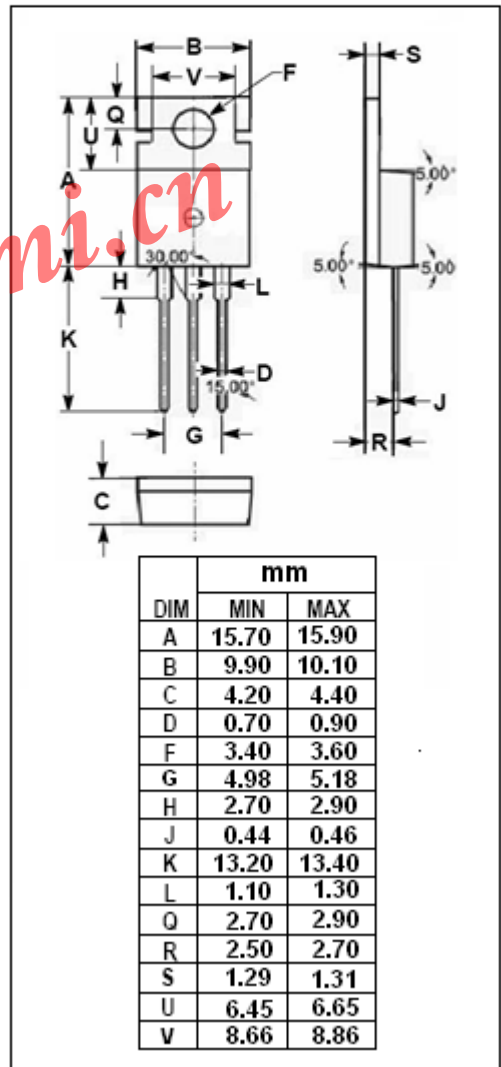
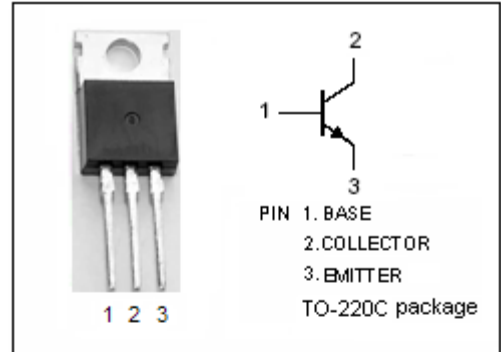
- DC Current Gain -
: $h_{FE} = 40(\text{Min.}) @ I_C = 25\text{mA}$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 80\text{V}(\text{Min.})$
- Complement to Type BD638

APPLICATIONS

- Designed for amplifier and switching applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 100 | V |
| V_{CEO} | Collector-Emitter Voltage | 80 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current-Continuous | 2 | A |
| I_{CM} | Collector Current-Peak | 5 | A |
| I_B | Base Current-Continuous | 0.3 | A |
| P_C | Collector Power Dissipation @ $T_a=25^\circ\text{C}$ | 2 | W |
| | Collector Power Dissipation @ $T_C=25^\circ\text{C}$ | 30 | |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



isc Silicon NPN Power Transistor**BD637****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|---------------|--------------------------------------|-------------------------------------|-----|-----|------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C=30\text{mA}; I_B=0$ | 80 | | V |
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage | $I_C=0.1\text{mA}; I_E=0$ | 100 | | 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 | $I_C=1\text{A}; I_B=0.1\text{A}$ | | 0.6 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C=1\text{A}; V_{CE}=2\text{V}$ | | 1.3 | V |
| I_{CES} | Collector Cutoff Current | $V_{CE}=100\text{V}; V_{BE}=0$ | | 0.2 | mA |
| h_{FE-1} | DC Current Gain | $I_C=25\text{mA}; V_{CE}=2\text{V}$ | 40 | | |
| h_{FE-2} | DC Current Gain | $I_C=1\text{A}; V_{CE}=2\text{V}$ | 25 | | |

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