

isc Silicon NPN Power Transistor
2SD882U-P
DESCRIPTION

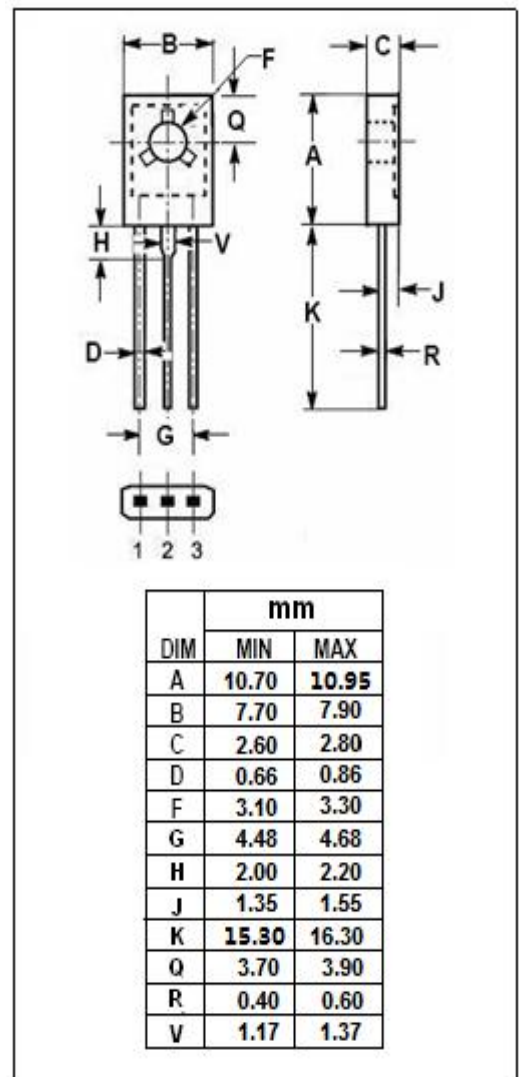
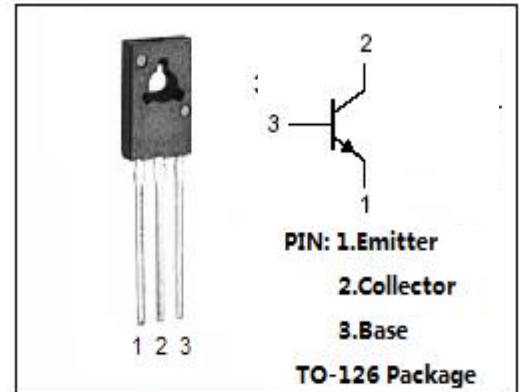
- High Collector Current- $I_C= 3.0A$
- Low Saturation Voltage -
: $V_{CE(sat)}= 0.8V(\text{Max})@ I_C= 2.0A, I_B= 0.2A$
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Design for used in medium power linear and switching applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 120 | V |
| V_{CES} | Collector-Emitter Voltage | 100 | V |
| V_{CEO} | Collector-Emitter Voltage | 100 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current-Continuous | 4 | A |
| I_{CP} | Collector Current-Pulse | 7.0 | A |
| P_C | Collector Power Dissipation @ $T_a=25^\circ\text{C}$ | 1.25 | W |
| | Collector Power Dissipation @ $T_C=25^\circ\text{C}$ | 36 | |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Operating and Storage Temperature Range | -65~150 | $^\circ\text{C}$ |



isc Silicon NPN Power Transistor**2SD882U-P****ELECTRICAL CHARACTERISTICS**T_C=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage | I _C = 1mA ; I _B =0 | 100 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 2.0A; I _B = 0.2A | | | 0.8 | V |
| V _{BE(on)} | Base-Emitter On Voltage | I _C = 2A ; V _{CE} = 1V | | | 1.5 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = 120V; I _E = 0 | | | 100 | μ A |
| I _{CES} | Collector Cutoff Current | V _{CE} = 100V; I _E = 0 | | | 100 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = 5V; I _C = 0 | | | 1.0 | mA |
| h _{FE-1} | DC Current Gain | I _C = 500mA ; V _{CE} = 1V | 100 | | 260 | |
| h _{FE-2} | DC Current Gain | I _C = 2A ; V _{CE} = 1V | 15 | | | |
| h _{FE-3} | DC Current Gain | I _C = 1A ; V _{CE} = 2V | 100 | | 260 | |
| h _{FE-4} | DC Current Gain | I _C = 10mA ; V _{CE} = 5V | 15 | | | |
| f _T | Current-Gain—Bandwidth Product | I _C = 0.25A ; V _{CE} = 1V | 3 | | | MHz |

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