

isc Silicon PNP Power Transistor

BD722

DESCRIPTION

- DC Current Gain-
: $h_{FE} = 40 @ I_C = -0.5A$
- Collector-Emitter Breakdown Voltage -
: $V_{(BR)CEO} = -80V(\text{Min})$
- Complement to type BD721
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

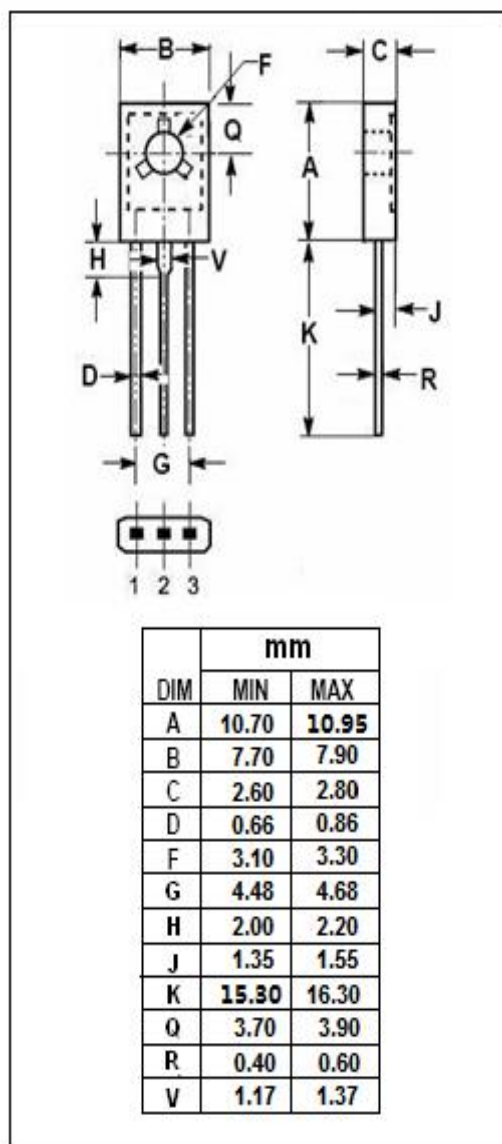
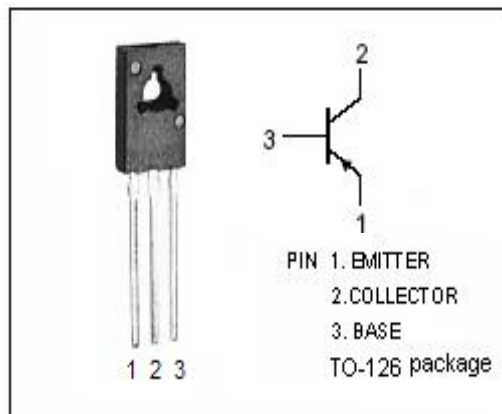
- Designed for use in audio output and general purpose amplifier applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|-----------------------------------------------------------|---------|------------------|
| V_{CBO} | Collector-Base Voltage | -80 | V |
| V_{CEO} | Collector-Emitter Voltage | -80 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -4 | A |
| I_{CM} | Collector Current-Peak | -7 | A |
| I_B | Base Current-Continuous | -1 | A |
| P_C | Collector Power Dissipation @ $T_C = 25^\circ\text{C}$ | 36 | W |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -65~150 | $^\circ\text{C}$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|-----------------------------------------|-----|--------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 3.5 | $^\circ\text{C/W}$ |
| $R_{th\ j-a}$ | Thermal Resistance, Junction to Ambient | 100 | $^\circ\text{C/W}$ |



isc Silicon PNP Power Transistor**BD722****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 = -30mA ; I _B = 0 | -80 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = -2A; I _B = -0.2A | | | -1.0 | V |
| V _{BE(on)} | Base-Emitter On Voltage | I _C = -2A; V _{CE} = -4V | | | -1.4 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = -80V; I _E = 0 | | | -50 | μ A |
| | | V _{CB} = -40V; I _E = 0; T _C = 150°C | | | -1 | mA |
| I _{CEO} | Collector Cutoff Current | V _{CE} = -40V; I _B = 0 | | | -0.1 | mA |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = -5V; I _C = 0 | | | -0.2 | mA |
| h _{FE-1} | DC Current Gain | I _C = -0.5A; V _{CE} = -4V | 40 | | | |
| h _{FE-2} | DC Current Gain | I _C = -2A; V _{CE} = -4V | 20 | | | |
| f _T | Current-Gain—Bandwidth Product | I _C = -0.5A; V _{CE} = -4V | 3 | | | MHz |
| Switching Times | | | | | | |
| t _{on} | Turn-On time | I _C = -1A; I _{B1} = -I _{B2} = -0.1A; V _{CC} = -20V | | 0.1 | | μ s |
| t _{off} | Turn-Off time | | | 0.4 | | μ s |

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