

isc Silicon PNP Power Transistor

ISCE18138P

DESCRIPTION

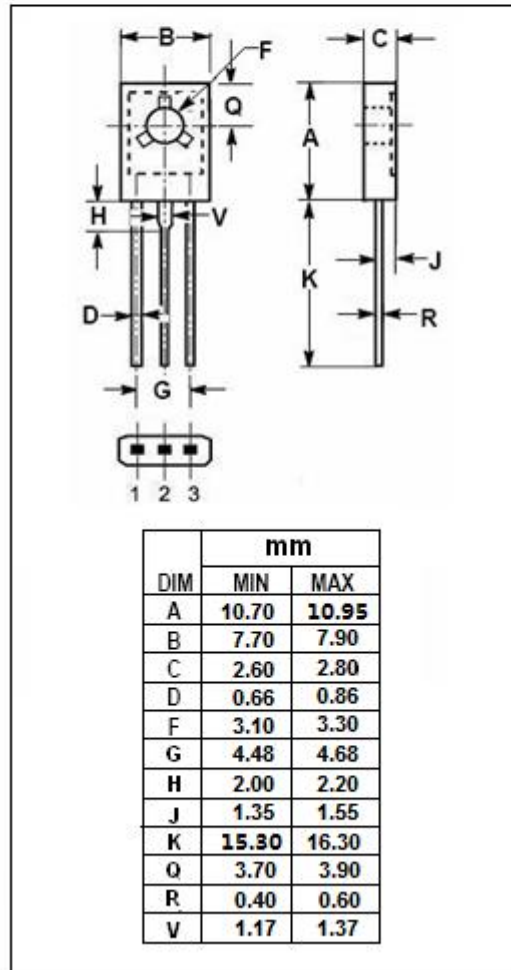
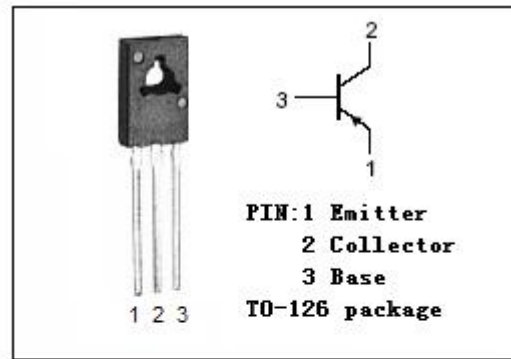
- High Collector Current $-I_C = -3A$
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -30V(\text{Min})$
- Good Linearity of h_{FE}
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in the output stage of 3 watts audio amplifier, voltage regulator, DC-DC converter and relay driver.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|------------------|
| V_{CBO} | Collector-Base Voltage | -40 | V |
| V_{CEO} | Collector-Emitter Voltage | -30 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -3 | A |
| I_{CP} | Collector Current-Pulse | -7 | A |
| P_C | Collector Power Dissipation @ $T_C=25^\circ\text{C}$ | 10 | W |
| | Collector Power Dissipation @ $T_a=25^\circ\text{C}$ | 1 | |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|------|------|
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = -2A; I _B = -0.2A | | | -0.5 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = -2A; I _B = -0.2A | | | -2.0 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = -30V; I _E = 0 | | | -1.0 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = -3V; I _C = 0 | | | -1.0 | μ A |
| h _{FE-1} | DC Current Gain | I _C = -20mA ; V _{CE} = -2V | 30 | | | |
| h _{FE-2} | DC Current Gain | I _C = -1A ; V _{CE} = -2V | 60 | | 400 | |
| f _T | Current-Gain—Bandwidth Product | I _C = -0.1A ; V _{CE} = -5V | | 80 | | MHz |
| C _{OB} | Output Capacitance | I _E =0; V _{CB} = -10V, f _{test} = 1MHz | | 55 | | pF |

◆ **h_{FE-2} Classifications**

| R | Q | P | E |
|--------|---------|---------|---------|
| 60-120 | 100-200 | 160-320 | 200-400 |