

isc Silicon PNP Power Transistor

3CA168

DESCRIPTION

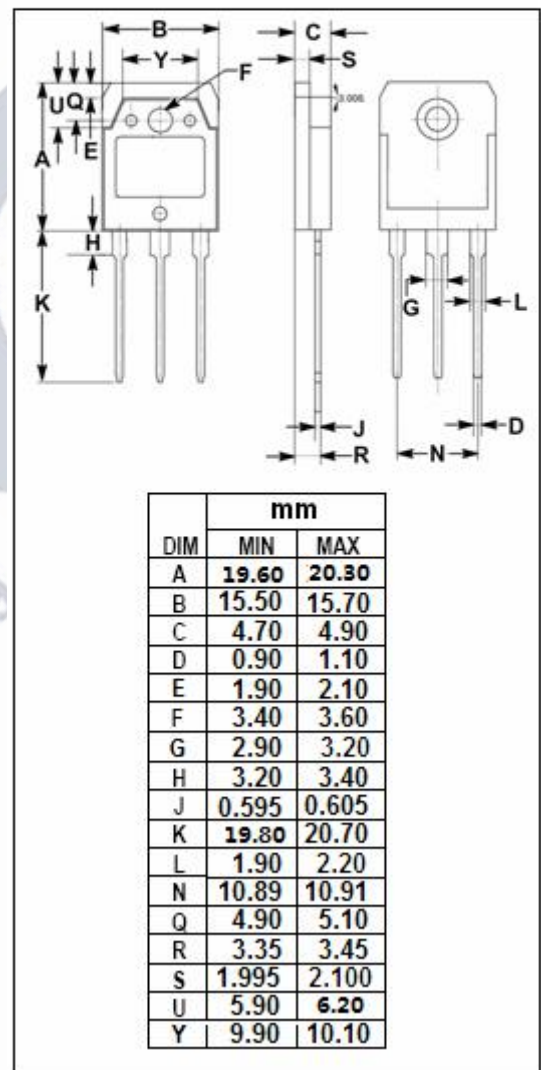
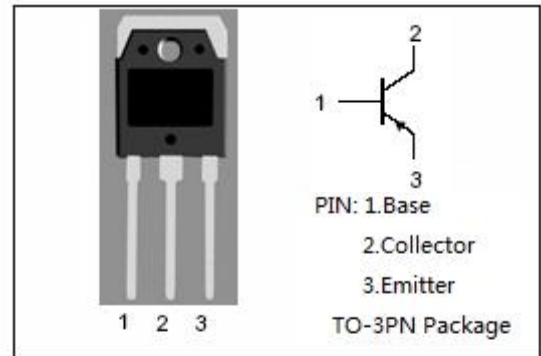
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -120V(\text{Min})$
- Good Linearity of h_{FE}

APPLICATIONS

- Audio frequency power amplifier applications
- Recommend for 45-50W audio frequency amplifier output stage applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|-------------|
| V_{CBO} | Collector-Base Voltage | -120 | V |
| V_{CEO} | Collector-Emitter Voltage | -120 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -8 | A |
| I_B | Base Current-Continuous | -0.8 | A |
| P_C | Collector Power Dissipation @ $T_C=25^{\circ}C$ | 80 | W |
| T_J | Junction Temperature | 150 | $^{\circ}C$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^{\circ}C$ |



isc Silicon PNP Power Transistor**3CA168****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|---|------|------|------|---------------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C = -50\text{mA}$; $I_B = 0$ | -120 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -5.0\text{A}$; $I_B = -0.5\text{A}$ | | | -2.5 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C = -5\text{A}$; $V_{CE} = -5\text{V}$ | | | -1.5 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB} = -120\text{V}$; $I_E = 0$ | | | -10 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB} = -5\text{V}$; $I_C = 0$ | | | -10 | μA |
| h_{FE} | DC Current Gain | $I_C = -1\text{A}$; $V_{CE} = -5\text{V}$ | 55 | | 160 | |
| C_{OB} | Output Capacitance | $I_E = 0$; $V_{CB} = -10\text{V}$; $f_{test} = 1.0\text{MHz}$ | | 280 | | pF |
| f_T | Current-Gain—Bandwidth Product | $I_C = -1\text{A}$; $V_{CE} = -5\text{V}$ | | 10 | | MHz |

◆ **h_{FE} Classifications**

| | |
|--------|--------|
| R | O |
| 55-110 | 80-160 |