# Silicon NPN Power Transistors 2SC2565



## DESCRIPTION

·With MT-200 package
·Complement to type 2SA1095
·High transition frequency

## APPLICATIONS

·For power amplifier applications

**PINNING(see Fig.2)**

| PIN | DESCRIPTION |
|---|---|
| 1 | Base |
| 2 | Collector;connected to mounting base |
| 3 | Emitter |

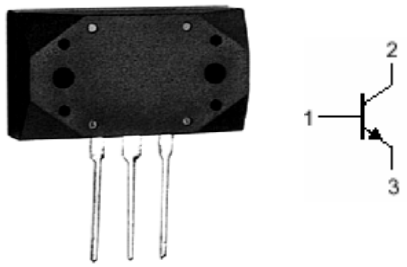


**Fig.1 simplified outline (MT-200) and symbol**

## Absolute maximum ratings (Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|---|---|---|---|---|
| $V_{CBO}$ | Collector-base voltage | Open emitter | 160 | V |
| $V_{CEO}$ | Collector-emitter voltage | Open base | 160 | V |
| $V_{EBO}$ | Emitter-base voltage | Open collector | 5 | V |
| $I_C$ | Collector current | | 15 | A |
| $I_B$ | Base current | | 1.5 | A |
| $P_C$ | Collectorl power dissipation | $T_C$=25□ | 150 | W |
| $T_j$ | Junction temperature | | 150 | □ |
| $T_{stg}$ | Storage temperature | | -55~150 | □ |

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## CHARACTERISTICS

**Tj=25□ unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage | $I_C$=0.1A; $I_B$=0 | 160 | | | V |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage | $I_E$=10mA; $I_C$=0 | 5 | | | V |
| $V_{CEsat}$ | Collector-emitter saturation voltage | $I_C$=5 A; $I_B$=0.5 A | | | 2.0 | V |
| $V_{BE}$ | Base-emitter on voltage | $I_C$=5A ; $V_{CE}$=5V | | | 2.0 | V |
| $I_{CBO}$ | Collector cut-off current | $V_{CB}$=160V; $I_E$=0 | | | 50 | μA |
| $I_{EBO}$ | Emitter cut-off current | $V_{EB}$=5V; $I_C$=0 | | | 50 | μA |
| $h_{FE-1}$ | DC current gain | $I_C$=1A ; $V_{CE}$=5V | 55 | | 240 | |
| $h_{FE-2}$ | DC current gain | $I_C$=5A ; $V_{CE}$=5V | 40 | | | |
| $f_T$ | Transition frequency | $I_C$=1A ; $V_{CE}$=10V | | 80 | | MHz |
| $C_{OB}$ | Output capacitance | $I_E$=0; $V_{CB}$=10V;f=1MHz | | 200 | | pF |

◆ **$h_{FE-1}$ classifications**

| R | O | Y |
|---|---|---|
| 55-110 | 80-160 | 120-240 |

**PACKAGE OUTLINE**

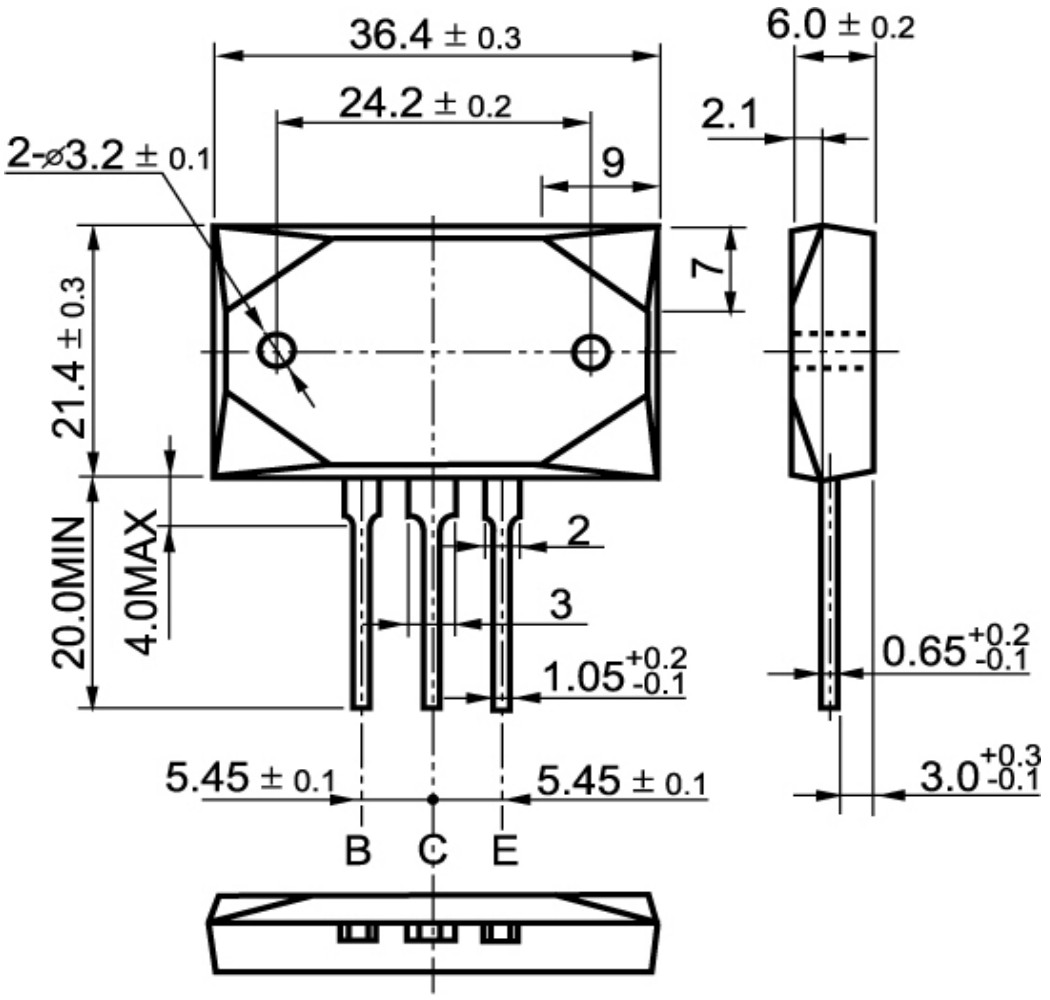


**Fig.2 Outline dimensions**