# Silicon NPN Power Transistors 2SC3298 2SC3298A 2SC3298B

## DESCRIPTION

·With TO-220Fa package
·Complement to type
2SA1306,2SA1306A,2SA1306B

## APPLICATIONS

·Power amplifier applications
·Driver stage amplifier applications

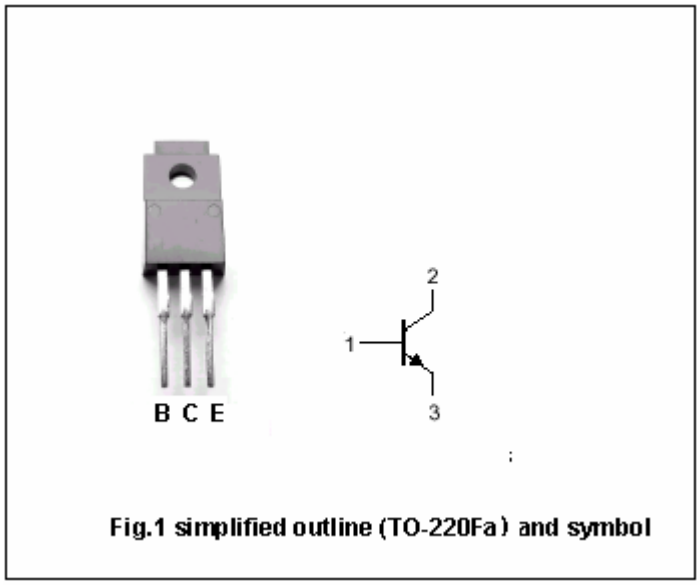

Fig.1 simplified outline (TO-220Fa) and symbol

**PINNING**

| PIN | DESCRIPTION |
|---|---|
| 1 | Base |
| 2 | Collector |
| 3 | Emitter |

**Absolute maximum ratings (Ta=25□)**

| SYMBOL | PARAMETER | | CONDITIONS | VALUE | UNIT |
|---|---|---|---|---|---|
| $V_{CBO}$ | Collector-base voltage | 2SC3298 | Open emitter | 160 | V |
| | | 2SC3298A | | 180 | |
| | | 2SC3298B | | 200 | |
| $V_{CEO}$ | Collector-emitter voltage | 2SC3298 | Open base | 160 | V |
| | | 2SC3298A | | 180 | |
| | | 2SC3298B | | 200 | |
| $V_{EBO}$ | Emitter-base voltage | | Open collector | 5 | V |
| $I_C$ | Collector current | | | 1.5 | A |
| $I_B$ | Base current | | | 0.15 | A |
| $P_C$ | Collector power dissipation | | $T_C$=25□ | 20 | 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 | 2SC3298 | $I_C$=10mA , $I_B$=0 | 160 | | | V |
| | | 2SC3298A | | 180 | | | |
| | | 2SC3298B | | 200 | | | |
| $V_{CEsat}$ | Collector-emitter saturation voltage | | $I_C$=0.5A, $I_B$=50mA | | | 1.5 | V |
| $V_{BE}$ | Base-emitter voltage | | $I_C$=0.5A ,$V_{CE}$=5V | | | 1.0 | V |
| $I_{CBO}$ | Collector cut-off current | | $V_{CB}$=160V, $I_E$=0 | | | 1.0 | μA |
| $I_{EBO}$ | Emitter cut-off current | | $V_{EB}$=5V; $I_C$=0 | | | 1.0 | μA |
| $h_{FE}$ | DC current gain | | $I_C$=0.1A ; $V_{CE}$=5V | 70 | | 240 | |
| $C_{ob}$ | Output capacitance | | $I_E$=0 ; $V_{CB}$=10V,f=1MHz | | 25 | | pF |
| $f_T$ | Transition frequency | | $I_C$=0.1A ; $V_{CE}$=10V | | 100 | | MHz |

◆ **$h_{FE}$ Classifications**

| O | Y |
|---|---|
| 70-140 | 120-240 |

**PACKAGE OUTLINE**

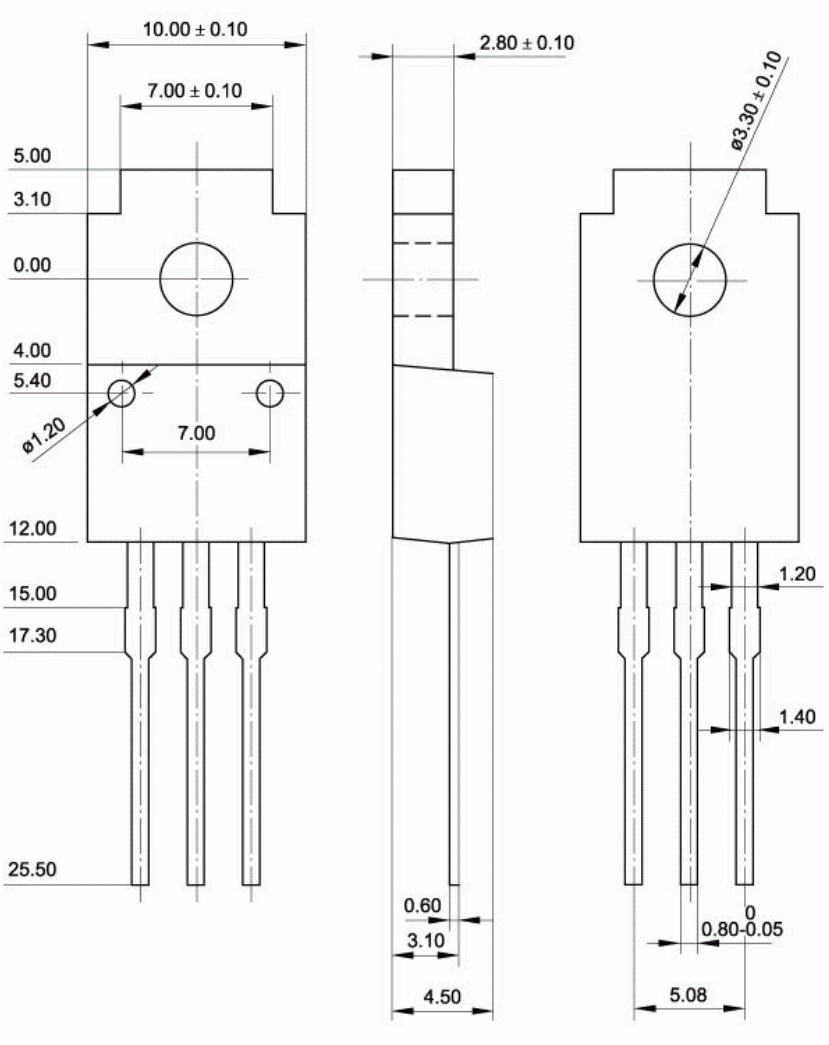


**Fig.2 Outline dimensions (unindicated tolerance:±0.15 mm)**