

Silicon NPN Power Transistors

2SD1264 2SD1264A

DESCRIPTION

- With TO-220Fa package
- Complement to type 2SB940/940A
- High collector to emitter voltage  $V_{CEO}$
- Large collector power dissipation  $P_C$

APPLICATIONS

- For power amplification
- For TV vertical deflection output applications

PINNING

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

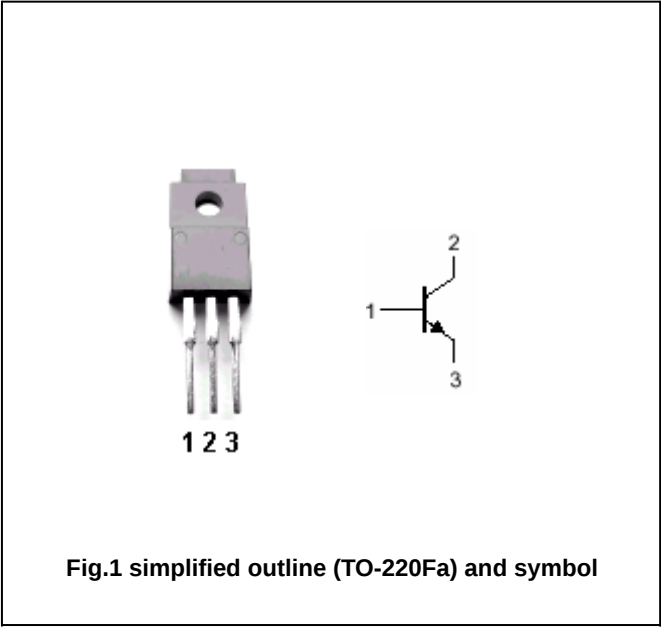


Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings( $T_a=25^{\circ}\text{C}$ )

| SYMBOL    | PARAMETER                   |          | CONDITIONS               | VALUE   | UNIT               |
|-----------|-----------------------------|----------|--------------------------|---------|--------------------|
| $V_{CBO}$ | Collector-base voltage      |          | Open emitter             | 200     | V                  |
| $V_{CEO}$ | Collector-emitter voltage   | 2SD1264  | Open base                | 150     | V                  |
|           |                             | 2SD1264A |                          | 180     |                    |
| $V_{EBO}$ | Emitter-base voltage        |          | Open collector           | 6       | V                  |
| $I_C$     | Collector current           |          |                          | 2       | A                  |
| $I_{CM}$  | Collector current-peak      |          |                          | 3       | A                  |
| $P_C$     | Collector power dissipation |          | $T_a=25^{\circ}\text{C}$ | 2       | W                  |
|           |                             |          | $T_C=25^{\circ}\text{C}$ | 30      |                    |
| $T_j$     | Junction temperature        |          |                          | 150     | $^{\circ}\text{C}$ |
| $T_{stg}$ | Storage temperature         |          |                          | -55~150 | $^{\circ}\text{C}$ |

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

| SYMBOL             | PARAMETER                            |          | CONDITIONS                                          | MIN | TYP. | MAX | UNIT |
|--------------------|--------------------------------------|----------|-----------------------------------------------------|-----|------|-----|------|
| V <sub>CEO</sub>   | Collector-emitter voltage            | 2SD1264  | I <sub>C</sub> =5mA, I <sub>B</sub> =0              | 150 |      |     | V    |
|                    |                                      | 2SD1264A |                                                     | 180 |      |     |      |
| V <sub>CBO</sub>   | Collector-base voltage               |          | I <sub>C</sub> =50 μA, I <sub>E</sub> =0            | 200 |      |     | V    |
| V <sub>EBO</sub>   | Emitter-base voltage                 |          | I <sub>C</sub> =500 μA, I <sub>C</sub> =0           | 6   |      |     | V    |
| V <sub>CEsat</sub> | Collector-emitter saturation voltage |          | I <sub>C</sub> =0.5A, I <sub>B</sub> =50mA          |     |      | 1.0 | V    |
| V <sub>BE</sub>    | Base-emitter voltage                 |          | I <sub>C</sub> =0.4A ; V <sub>CE</sub> =10V         |     |      | 1.0 | V    |
| I <sub>EBO</sub>   | Emitter cut-off current              |          | V <sub>EB</sub> =4V; I <sub>C</sub> =0              |     |      | 50  | μA   |
| I <sub>CBO</sub>   | Collector cut-off current            |          | V <sub>CB</sub> =200V; I <sub>E</sub> =0            |     |      | 50  | μA   |
| h <sub>FE-1</sub>  | DC current gain                      |          | I <sub>C</sub> =0.15A ; V <sub>CE</sub> =10V        | 60  |      | 240 |      |
| h <sub>FE-2</sub>  | DC current gain                      |          | I <sub>C</sub> =0.4A ; V <sub>CE</sub> =10V         | 50  |      |     |      |
| f <sub>T</sub>     | Transition frequency                 |          | I <sub>C</sub> =0.5A; V <sub>CE</sub> =10V, f=10MHz |     | 20   |     | MHz  |

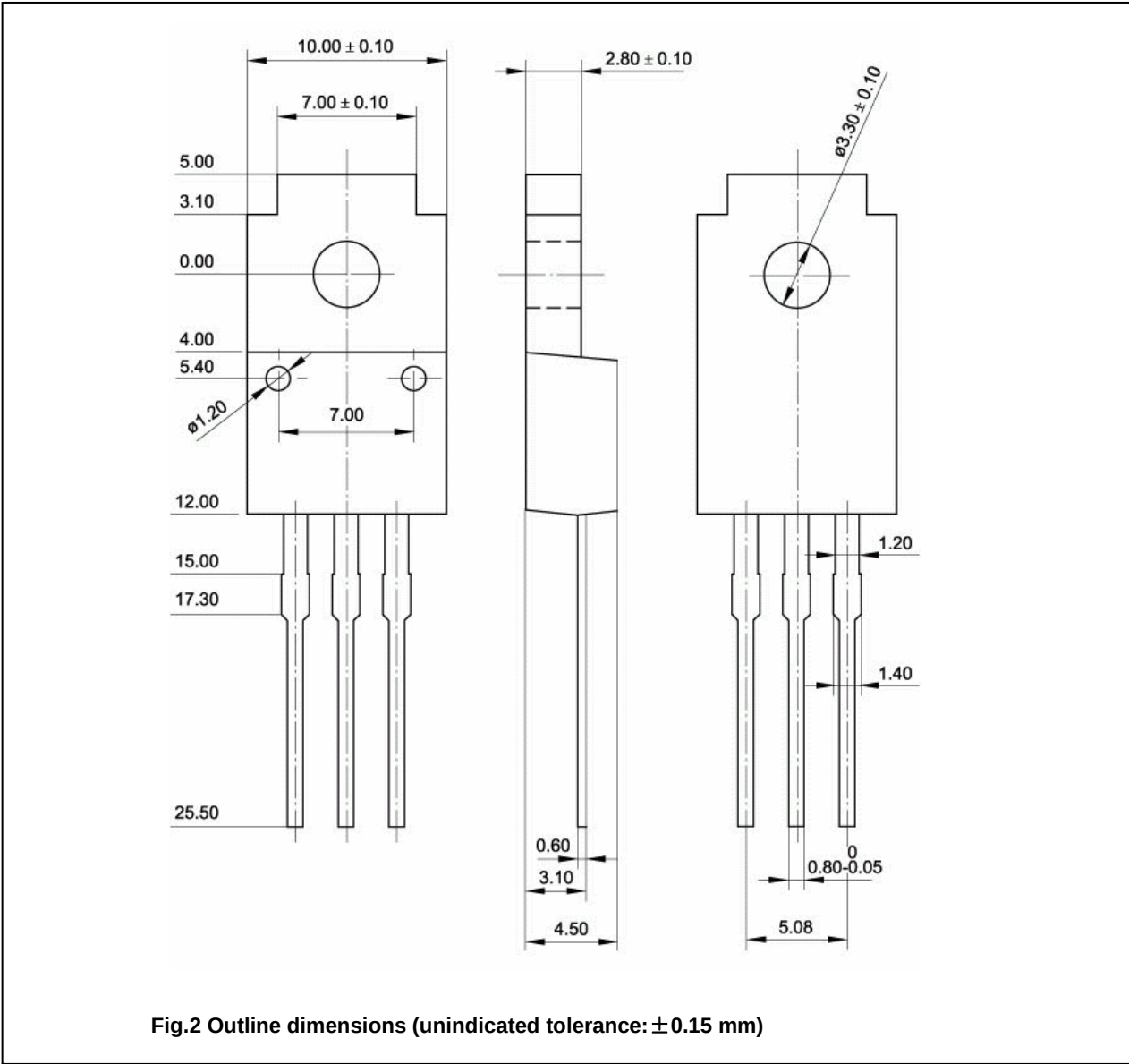
◆ h<sub>FE-1</sub> Classifications

| Q      | P       |
|--------|---------|
| 60-140 | 100-240 |

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PACKAGE OUTLINE



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