

SavantIC Semiconductor

Product Specification

Silicon PNP Power Transistors

KSA1614

DESCRIPTION

- With TO-220F package
- Collector-base voltage:  $V_{CBO}=-80V$
- Collector dissipation:  $P_C=20W(T_C=25^\circ C)$

APPLICATIONS

- Power regulator
- Low frequency power amplifier

PINNING

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

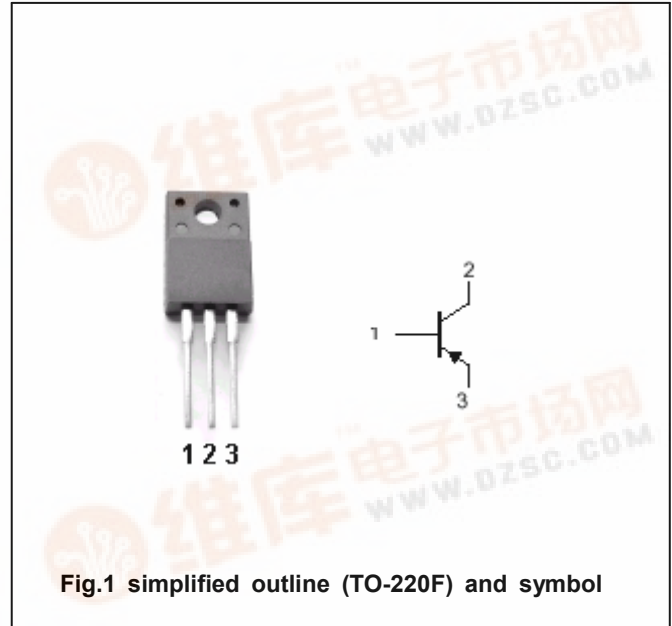


Fig.1 simplified outline (TO-220F) and symbol

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

| SYMBOL    | PARAMETER                 | CONDITIONS       | VALUE   | UNIT       |
|-----------|---------------------------|------------------|---------|------------|
| $V_{CBO}$ | Collector-base voltage    | Open emitter     | -80     | V          |
| $V_{CEO}$ | Collector-emitter voltage | Open base        | -55     | V          |
| $V_{EBO}$ | Emitter-base voltage      | Open collector   | -5      | V          |
| $I_C$     | Collector current         |                  | -3      | A          |
| $P_C$     | Collector dissipation     | $T_C=25^\circ C$ | 20      | W          |
| $T_j$     | Junction temperature      |                  | 150     | $^\circ C$ |
| $T_{stg}$ | Storage temperature       |                  | -55~150 | $^\circ C$ |

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## CHARACTERISTICS

 $T_j=25^\circ\text{C}$  unless otherwise specified

| SYMBOL        | PARAMETER                            | CONDITIONS                               | MIN | TYP.  | MAX  | UNIT          |
|---------------|--------------------------------------|------------------------------------------|-----|-------|------|---------------|
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage  | $I_C=-10\text{mA}$ ; $I_B=0$             | -55 |       |      | V             |
| $V_{(BR)CBO}$ | Collector-base breakdown voltage     | $I_C=-500\mu\text{A}$ ; $I_E=0$          | -80 |       |      | V             |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage       | $I_E=-500\mu\text{A}$ ; $I_C=0$          | -5  |       |      | V             |
| $V_{CEsat}$   | Collector-emitter saturation voltage | $I_C=-1\text{A}$ ; $I_B=-0.1\text{A}$    |     | -0.15 | -0.5 | V             |
| $I_{CBO}$     | Collector cut-off current            | $V_{CB}=-50\text{V}$ ; $I_E=0$           |     |       | -50  | $\mu\text{A}$ |
| $h_{FE}$      | DC current gain                      | $I_C=-0.5\text{A}$ ; $V_{CE}=-5\text{V}$ | 40  |       | 240  |               |

◆  $h_{FE}$  Classifications

| R     | O      | Y       |
|-------|--------|---------|
| 40-80 | 70-140 | 120-240 |

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PACKAGE OUTLINE

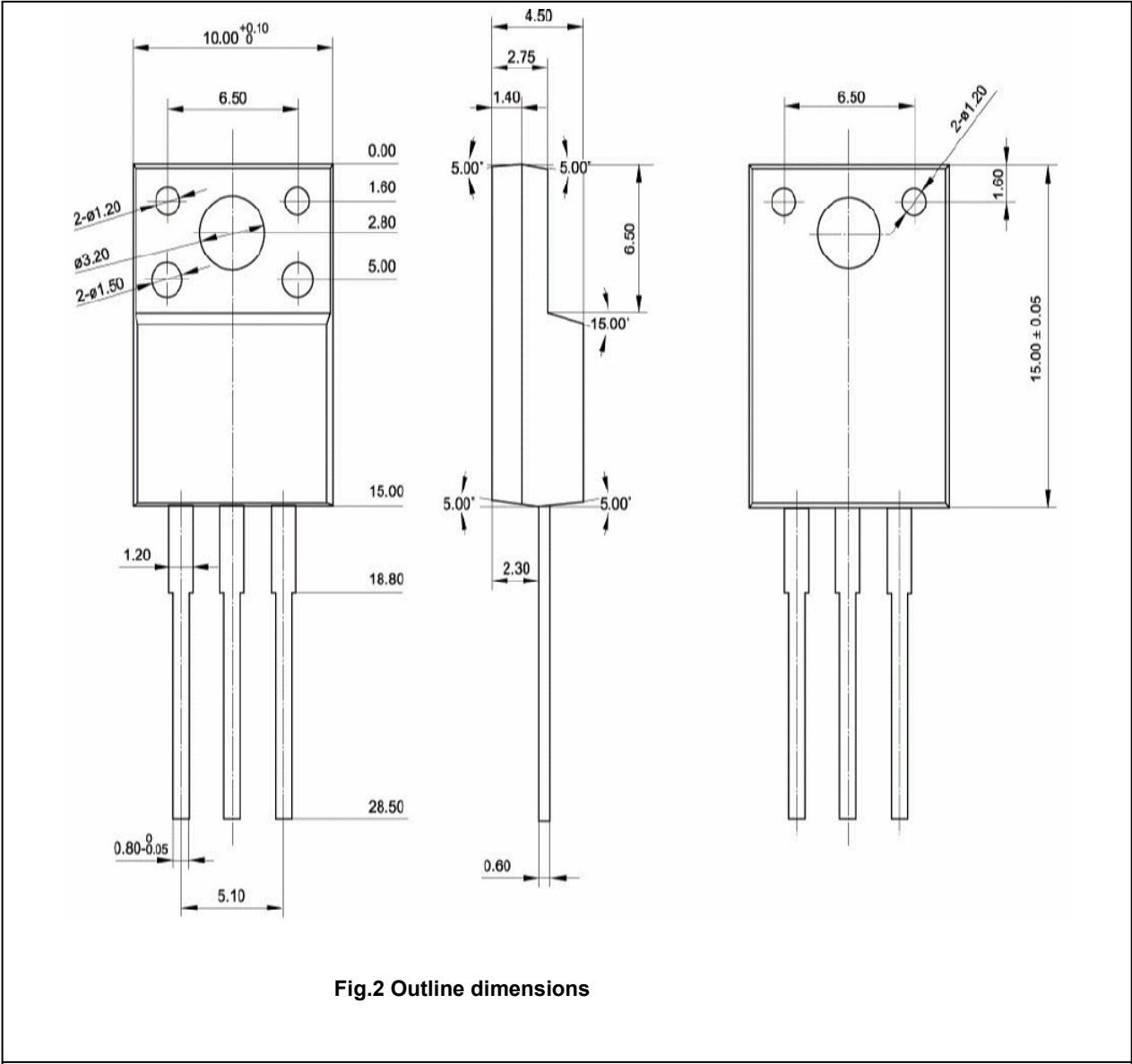


Fig.2 Outline dimensions