

Silicon NPN Power Transistors

2SD2586

DESCRIPTION

- With TO-3P(H)IS package
- High voltage ,high speed
- Low saturation voltage
- Bult-in damper type

APPLICATIONS

- Horizontal deflection output for color TV

PINNING

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

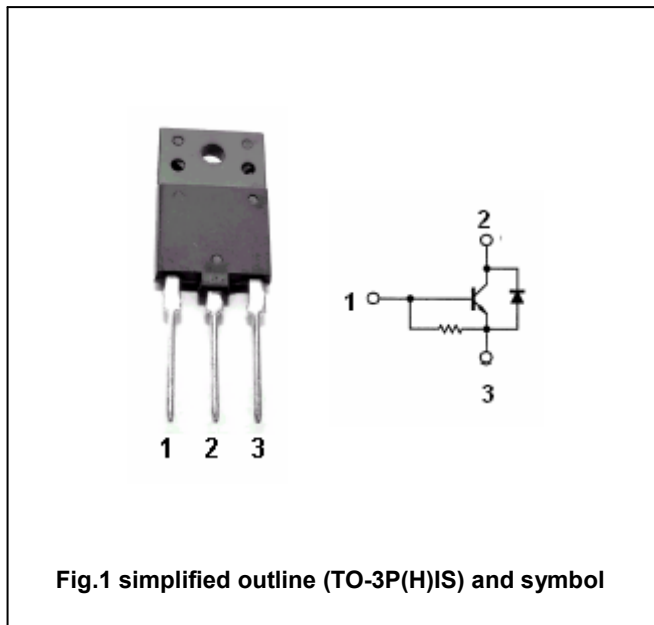


Fig.1 simplified outline (TO-3P(H)IS) and symbol

Absolute maximum ratings(Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 1500 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 600 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I _C | Collector current | | 5 | A |
| I _{CM} | Collector current-peak | | 10 | A |
| I _B | Base current | | 2.5 | A |
| P _C | Total power dissipation | T _C =25°C | 50 | W |
| T _j | Junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -55~150 | °C |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _C =300mA ; I _B =0 | 5 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =3.5A; I _B =0.8A | | | 5 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =3.5A; I _B =0.8A | | 0.9 | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =1500V; I _E =0 | | | 1 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | 70 | | 250 | mA |
| h _{FE-1} | DC current gain | I _C =1A ; V _{CE} =5V | 8 | | 28 | |
| h _{FE-2} | DC current gain | I _C =3.5A ; V _{CE} =5V | 4.4 | | 8.5 | |
| V _F | Diode forward voltage | I _F =5A | | 1.5 | 2.0 | V |
| C _{ob} | Collector output capacitance | I _E =0 ; V _{CB} =10V,f=1MHz | | 73 | | pF |
| f _T | Transition frequency | I _C =0.1A ; V _{CE} =10V | | 2.5 | | MHz |

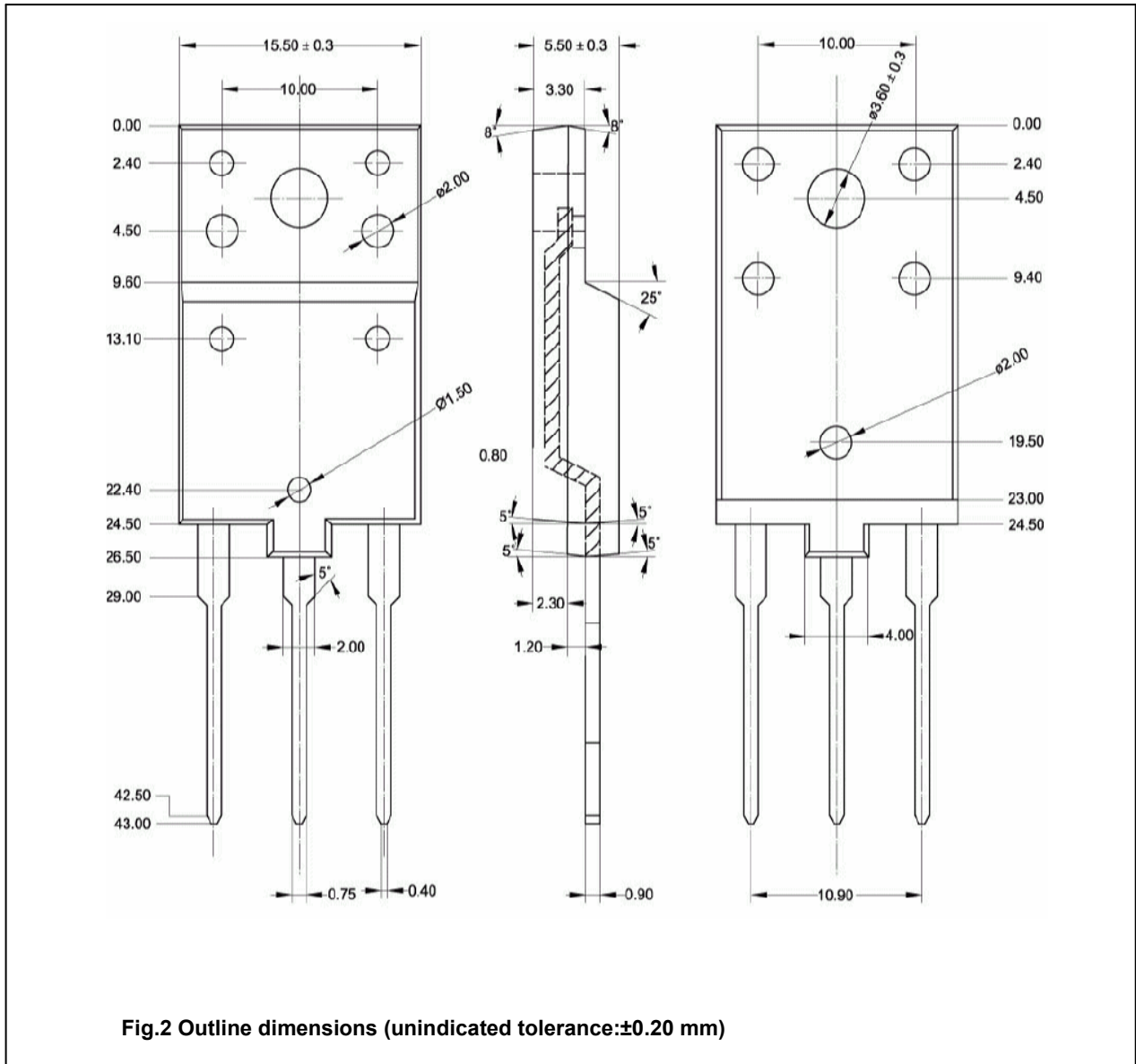
Switching times :

| | | | | | | |
|----------------|--------------|--|--|-----|-----|----|
| t _s | Storage time | I _{CP} =3.5A; I _{B1} =0.8A f _H =15.75kHz | | 7.5 | 10 | μs |
| t _f | Fall time | | | 0.3 | 0.6 | μs |

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PACKAGE OUTLINE



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