

Silicon NPN Power Transistors

2SC4531

DESCRIPTION

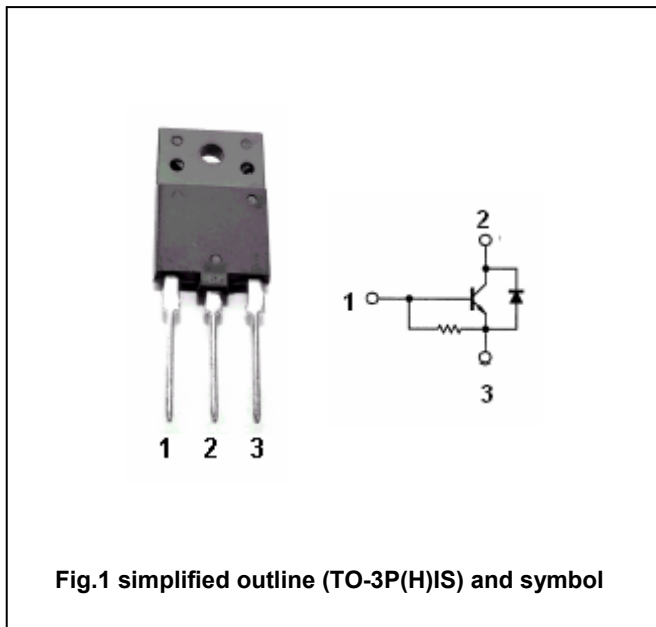
- With TO-3P(H)IS package
- High voltage,high speed
- Low saturation voltage
- Bult-in damper diode

APPLICATIONS

- Horizontal deflection output applications

PINNING

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



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 | | 10 | A |
| I _{CM} | Collector current-Peak | | 20 | A |
| I _B | Base current | | 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 _E =200mA ; I _C =0 | 5 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =7A; I _B =1.7A | | | 5 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =7A; I _B =1.7A | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =500V; I _E =0 | | | 10 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | 66 | 100 | 200 | mA |
| h _{FE} | DC current gain | I _C =1A ; V _{CE} =5V | 8 | | | |
| C _{ob} | Collector output capacitance | I _E =0 ; V _{CB} =10V, f=1MHz | | 210 | | pF |
| V _F | Diode forward voltage | I _F =7A | | 1.5 | 1.8 | V |
| f _T | Transition frequency | I _C =0.1A ; V _{CE} =10V | 1 | 3 | | MHz |

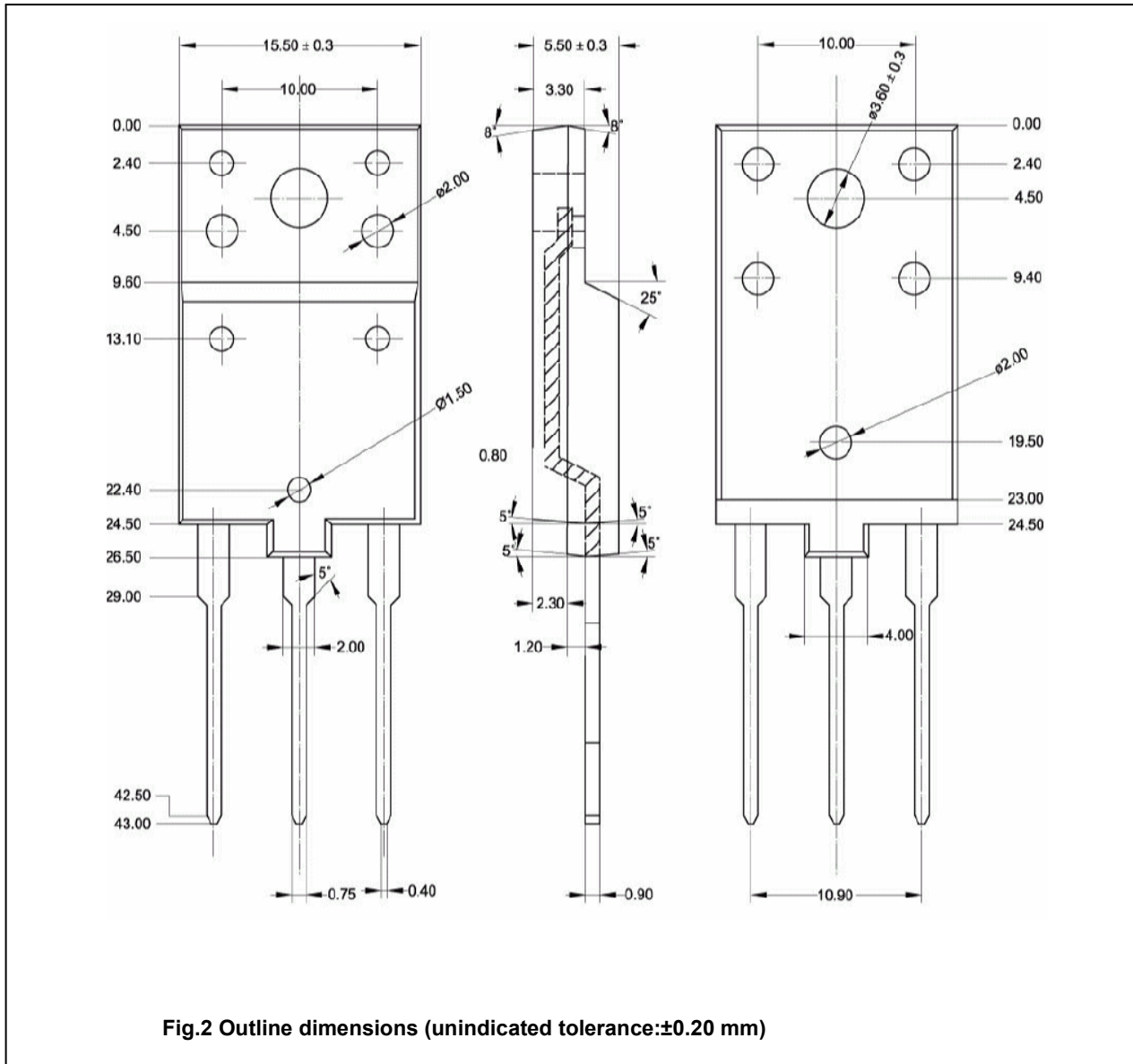
Switching times resistive load

| | | | | | | |
|----------------|--------------|---|--|-----|-----|----|
| t _s | Storage time | I _{CP} =7A; I _{B1} =1.4A I _{B2} =-2.8A; R _L =28.5Ω | | 1.8 | 2.5 | μs |
| t _f | Fall time | | | 0.1 | 0.2 | μs |

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PACKAGE OUTLINE



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