

Silicon NPN Power Transistors

2SD1546

DESCRIPTION

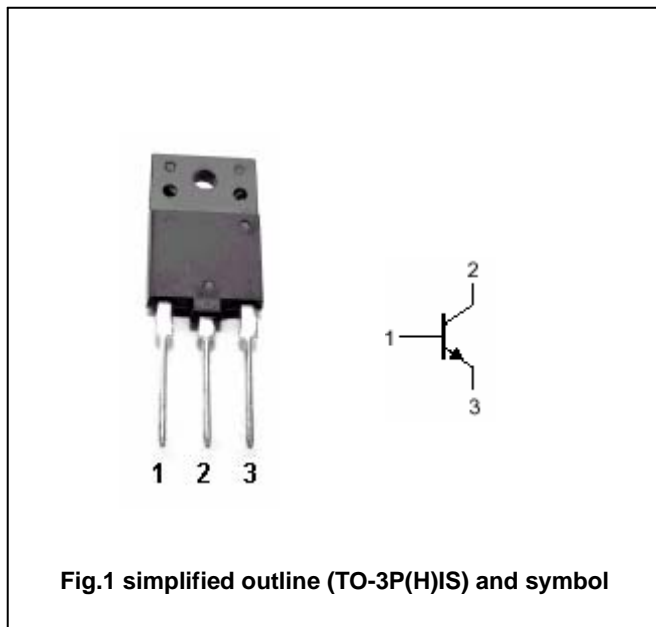
- With TO-3P(H)IS package
- High voltage ,high speed
- Low collector saturation voltage

APPLICATIONS

- Color TV horizontal output applications
- Switching regulator output applications

PINNING

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



Absolute maximum ratings (Ta=25)

| 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 | | 6 | A |
| I_B | Base current | | 3 | A |
| P_C | Collector power dissipation | $T_C=25$ | 50 | W |
| T_j | Junction temperature | | 150 | |
| T_{stg} | Storage temperature | | -55~150 | |

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CHARACTERISTICS

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|--------------------|--------------------------------------|--|-----|------|-----|------|
| V _{CEsat} | Collector-emitter saturation voltage | I _C =5A ; I _B =1A | | 3.0 | 5.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =5A ; I _B =1A | | | 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 | | | 1 | mA |
| h _{FE} | DC current gain | I _C =1A ; V _{CE} =5V | 8 | 20 | | |
| f _T | Transition frequency | I _C =0.1A ; V _{CE} =10V | | 3 | | MHz |
| C _{OB} | Collector output capacitance | I _E =0 ; V _{CB} =10V; f=1MHz | | 165 | | pF |
| t _f | Fall time | I _{CP} =5A ; I _{B1(end)} =1A | | 0.5 | 1.0 | μs |

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PACKAGE OUTLINE

