

Silicon NPN Power Transistors

S2055A

DESCRIPTION

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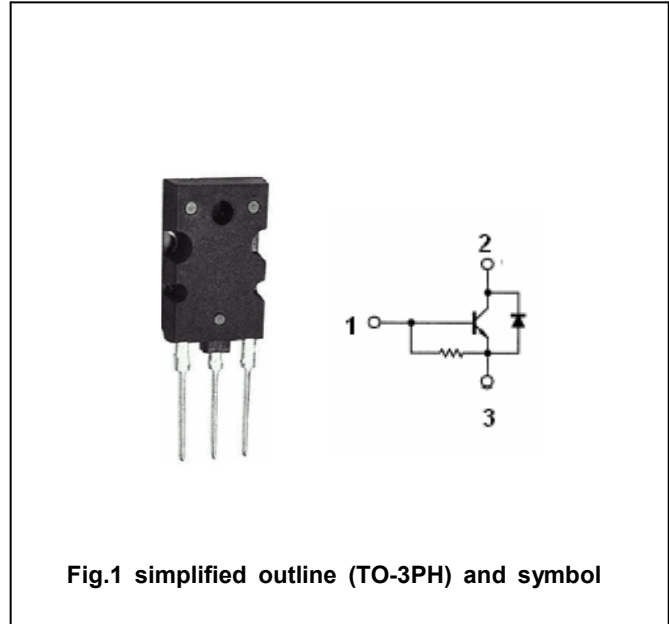
- With TO-3PH package
- High voltage ,high speed
- Low collector saturation voltage
- Built-in damper diode

APPLICATIONS

- Color TV horizontal output applications
- Color TV switching regulator applications

PINNING □ See Fig.2 □

| PIN | DESCRIPTION |
|-----|--------------------------------------|
| 1 | Base |
| 2 | Collector;connected to mounting base |
| 3 | Emitter |

ABSOLUTE MAXIMUM RATINGS ($T_C=25^\circ$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 1500 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 700 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I_C | Collector current | | 8 | A |
| I_{CM} | Collector current-peak | | 15 | A |
| I_B | Base current | | 4 | A |
| P_C | Collector power dissipation | $T_C=25^\circ$ | 125 | W |
| T_j | Junction temperature | | 150 | □ |
| T_{stg} | Storage temperature | | -55~150 | □ |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|--|-----|------|-----|------|
| V _{CEQ(SUS)} | Collector-emitter sustaining voltage | I _B =500mA ; V _{BE} =-1.7V; L=40mH | 700 | | | V |
| V _{CE(sat)} | Collector-emitter saturation voltage | I _C =4.5A ; I _B =2A | | | 1.0 | V |
| V _{BE(sat)} | Base-emitter saturation voltage | I _C =4.5A ; I _B =1.0A | | | 1.2 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =1500V; V _{BE} =0 | | | 1.0 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | | | 300 | mA |
| h _{FE-1} | DC current gain | I _C =1A ; V _{CE} =5V | 10 | | 30 | |
| h _{FE-2} | DC current gain | I _C =4.5A ; V _{CE} =5V | 4.5 | | 9 | |
| C _{OB} | Collector output capacitance | I _E =0 ; V _{CB} =10V; f=1MHz | | 95 | | pF |
| f _T | Transition frequency | I _C =0.1A ; V _{CE} =10V | | 2 | | MHz |

PACKAGE OUTLINE

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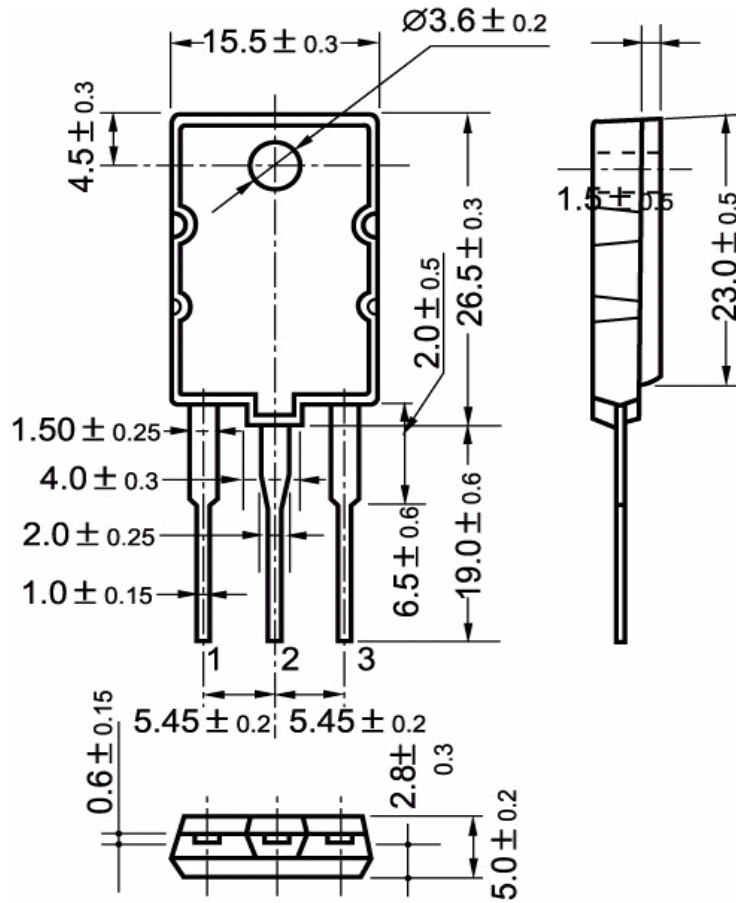


Fig.2 outline dimensions