

Silicon NPN Power Transistors

2SC2792

DESCRIPTION

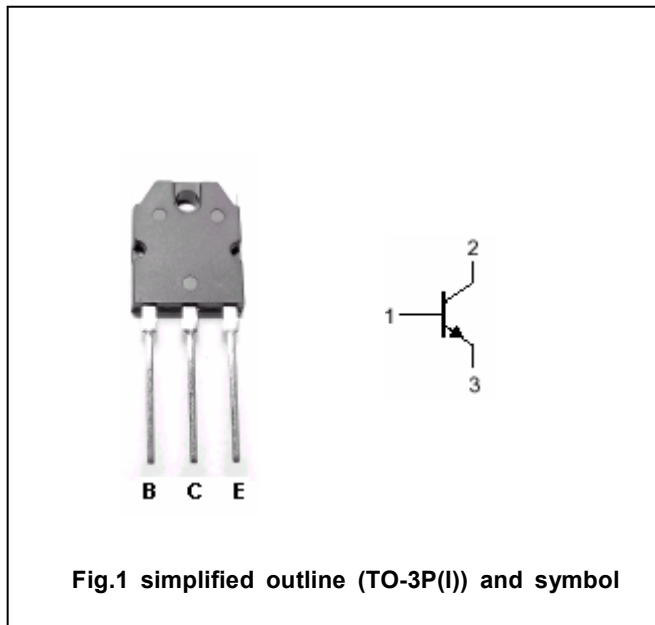
- With TO-3P(I) package
- High breakdown voltage
- Excellent switching times

APPLICATIONS

- Switching regulator and high voltage
- Switching applications
- High speed DC-DC converter applications

PINNING

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



Absolute maximum ratings(Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|---------------------------|------------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 850 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 800 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 7 | V |
| I_C | Collector current-DC | | 2 | A |
| I_{CM} | Collector current-peak | | 4 | A |
| I_B | Base current | | 1 | A |
| P_T | Total power dissipation | $T_C=25^\circ C$ | 80 | 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)CEO} | Collector-emitter breakdown voltage | I _C =10mA, I _B =0 | 800 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =1mA, I _E =0 | 850 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =500mA; I _B =50mA | | | 1.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =500mA; I _B =50mA | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =800V; I _E =0 | | | 100 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =7V; I _C =0 | | | 1.0 | mA |
| h _{FE} | DC current gain | I _C =0.5A; V _{CE} =5V | 10 | | | |

Switching times

| | | | | | | |
|------------------|--------------|--|--|--|-----|----|
| t _r | Rise time | V _{CC} =400V; 2I _{B1} =-I _{B2} =0.1A; R _L =800Ω | | | 1.0 | μs |
| t _{stg} | Storage time | | | | 4.0 | μs |
| t _f | Fall time | | | | 1.0 | μs |

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PACKAGE OUTLINE

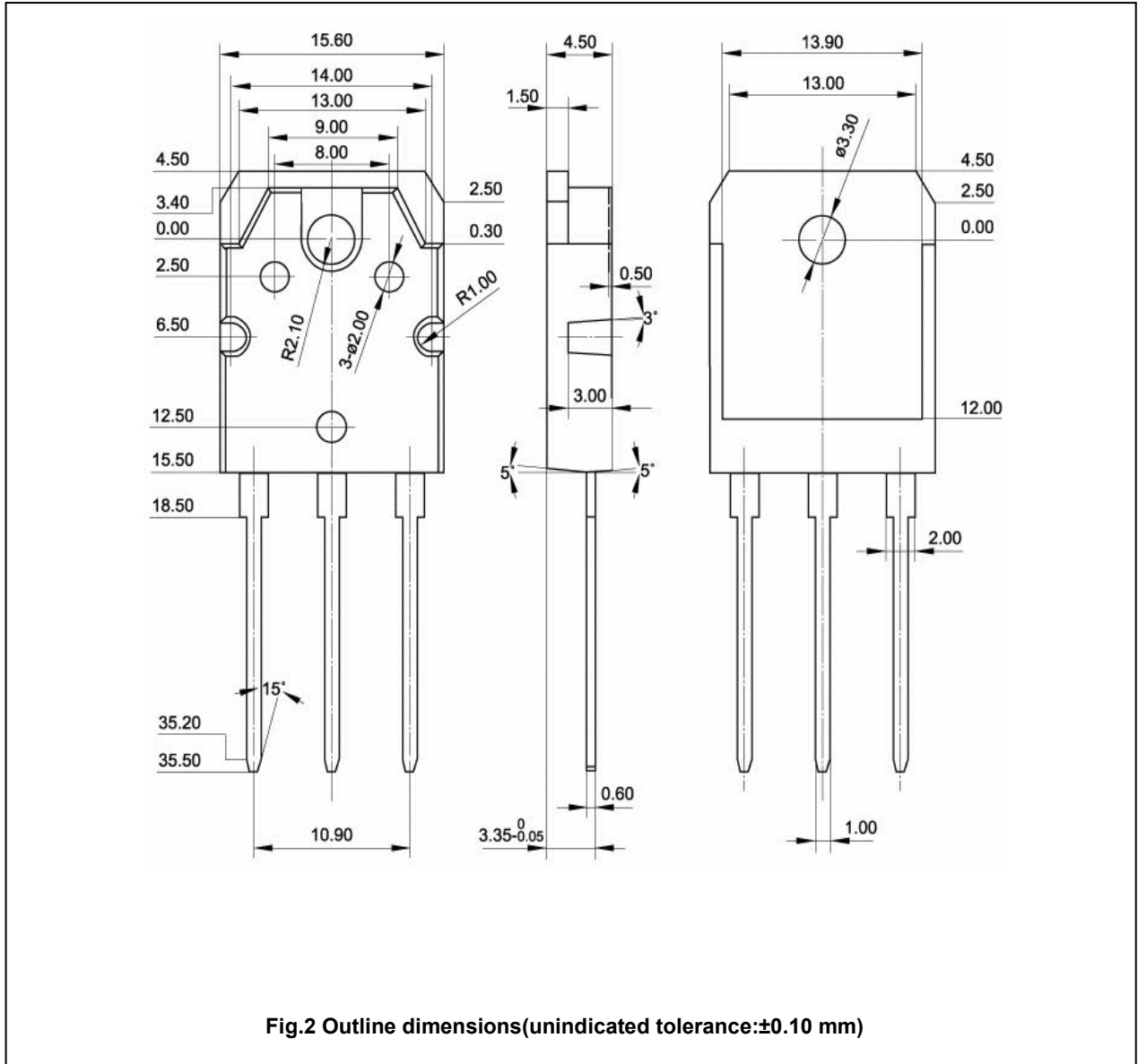


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)

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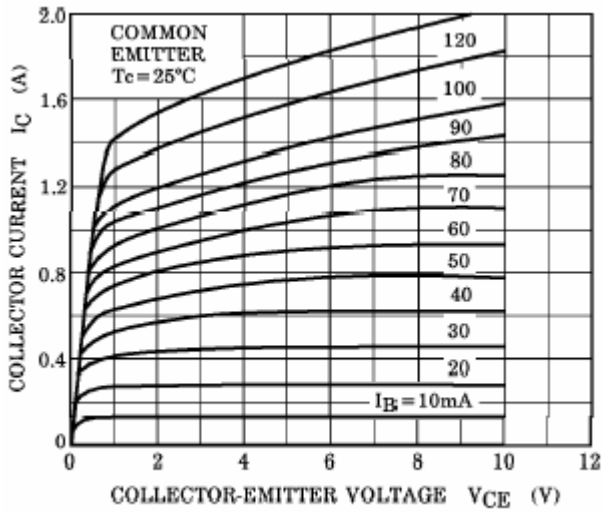


Fig.3 Static Characteristic

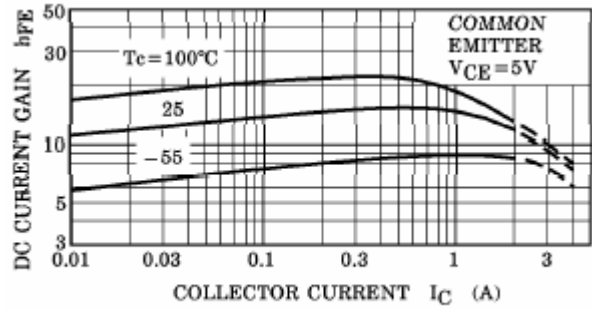


Fig.4 DC current Gain

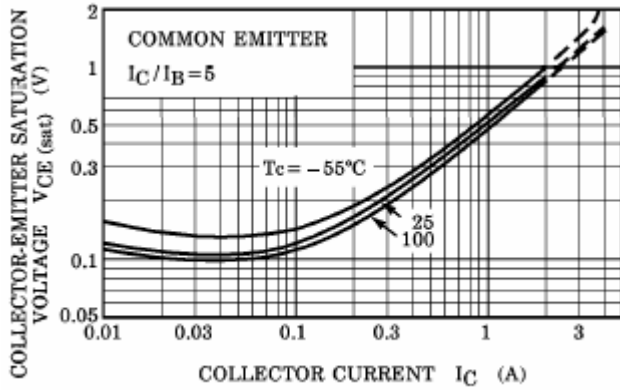


Fig.5 Collector-Emitter Saturation Voltage

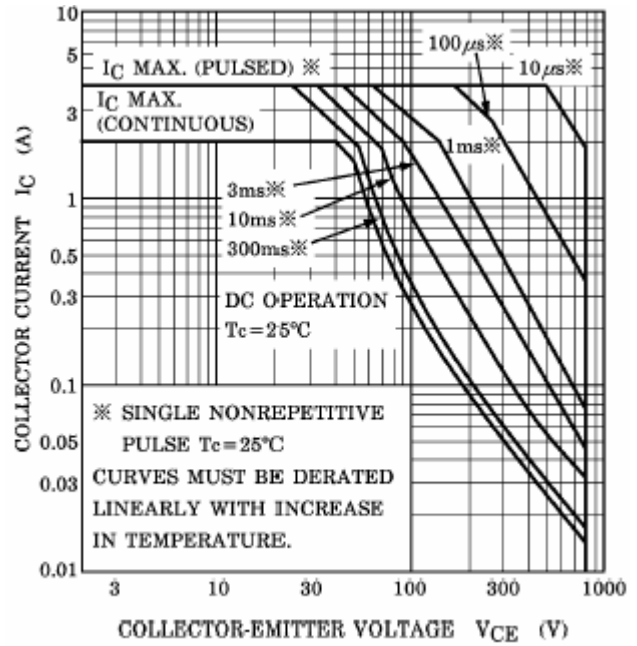


Fig.7 Safe Operating Area

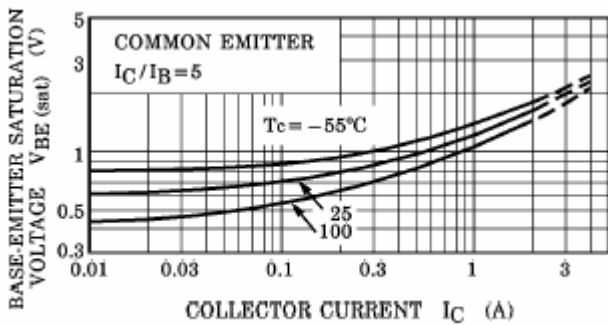


Fig.6 Base-Emitter Saturation Voltage