

Silicon NPN Power Transistors

2SD1885

DESCRIPTION

www.datasheet4u.com

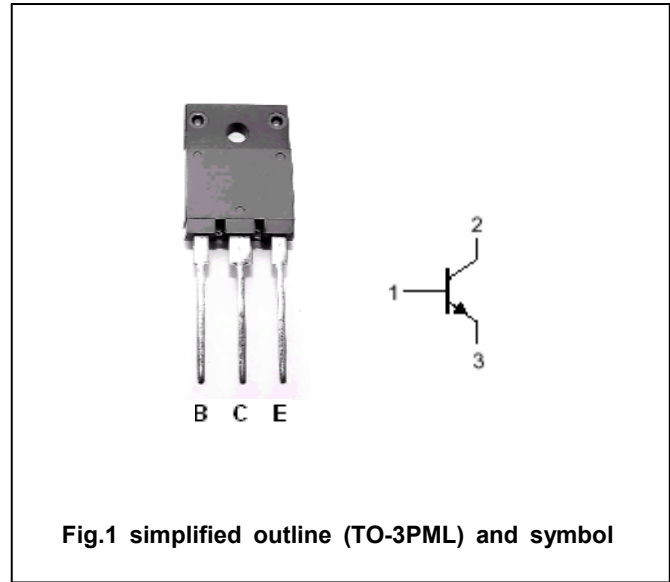
- With TO-3PML package
- High breakdown voltage
- High reliability
- High speed

APPLICATIONS

- Color TV horizontal deflection output.
- Color display horizontal deflection output.

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|------------------------|---------|------------------|
| V_{CBO} | Collector-base voltage | Open emitter | 1500 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 800 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 6 | V |
| I_C | Collector current | | 6 | A |
| I_{CM} | Collector current-peak | | 20 | A |
| P_C | Collector power dissipation | | 3.0 | W |
| | | $T_C=25^\circ\text{C}$ | 60 | |
| T_j | Junction temperature | | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage temperature | | -55~150 | $^\circ\text{C}$ |

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CHARACTERISTICS

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 $T_j=25^\circ\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------|--------------------------------------|--|-----|------|-----|---------|
| V_{CEsat} | Collector-emitter saturation voltage | $I_C=5A; I_B=1 A$ | | | 5 | V |
| V_{BEsat} | Base-emitter saturation voltage | $I_C=5A; I_B=1 A$ | | | 1.5 | V |
| $V_{CEO(SUS)}$ | Collector-emitter sustaining voltage | $I_C=100mA; I_B=0$ | 800 | | | V |
| I_{EBO} | Emitter cut-off current | $V_{EB}=4V; I_C=0$ | | | 1 | mA |
| I_{CBO} | Collector cut-off current | $V_{CB}=800V; I_E=0$ | | | 10 | μA |
| I_{CES} | Collector cut-off current | $V_{CE}=1500V; R_{BE}=0$ | | | 1 | mA |
| h_{FE-1} | DC current gain | $I_C=1 A ; V_{CE}=5V$ | 8 | | | |
| h_{FE-2} | DC current gain | $I_C=5A ; V_{CE}=5V$ | 5 | | 10 | |
| t_f | Fall time | $I_C=4A; R_L=50\Omega; I_{B1}=0.8A$ $I_{B2}=-1.6A; V_{CC}=200V$ | | 0.1 | 0.3 | μs |

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PACKAGE OUTLINE

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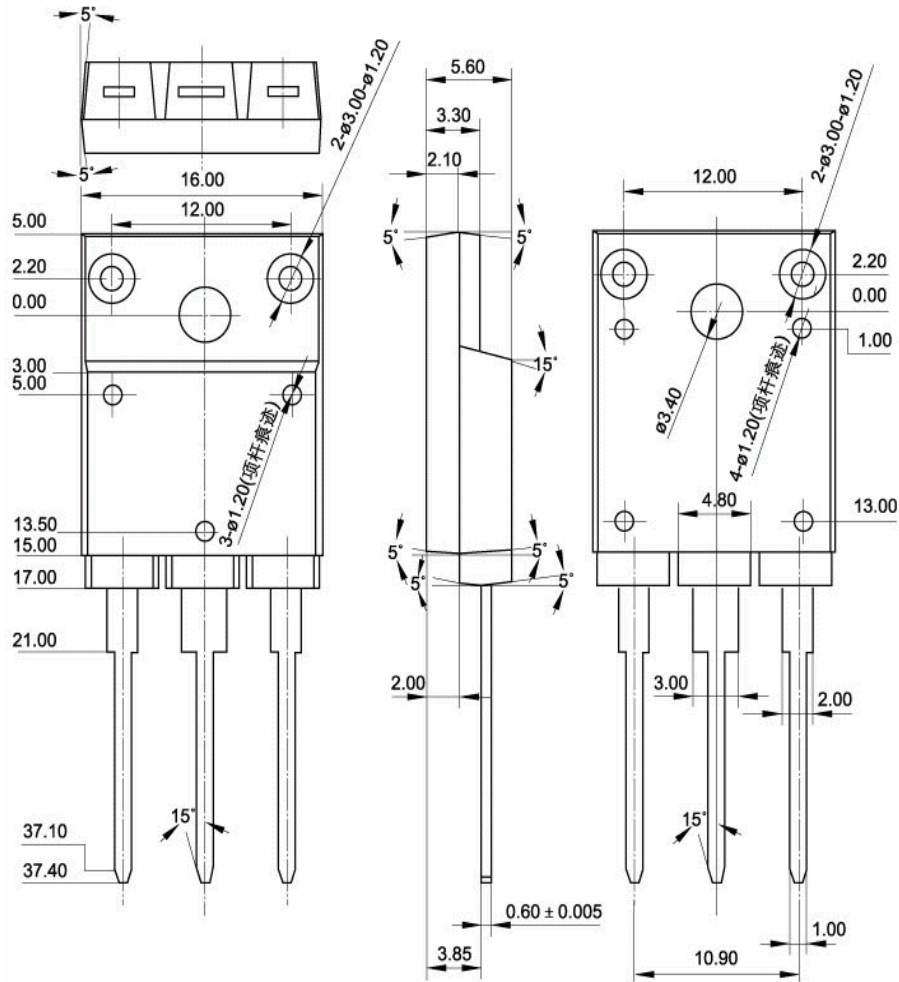


Fig.2 Outline dimensions

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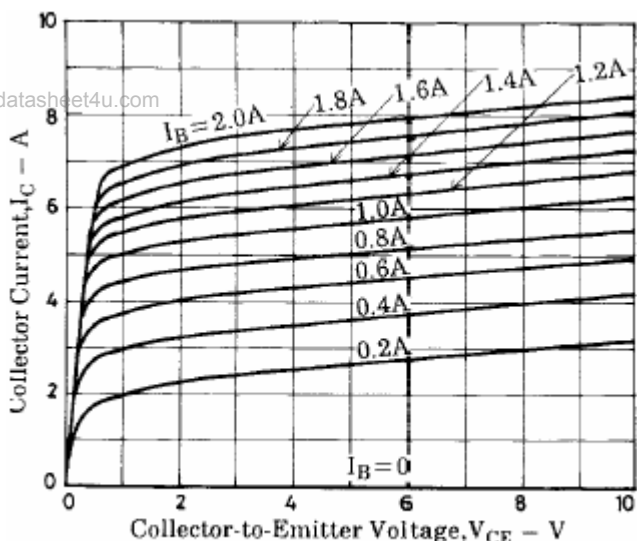


Fig.3 Static Characteristic

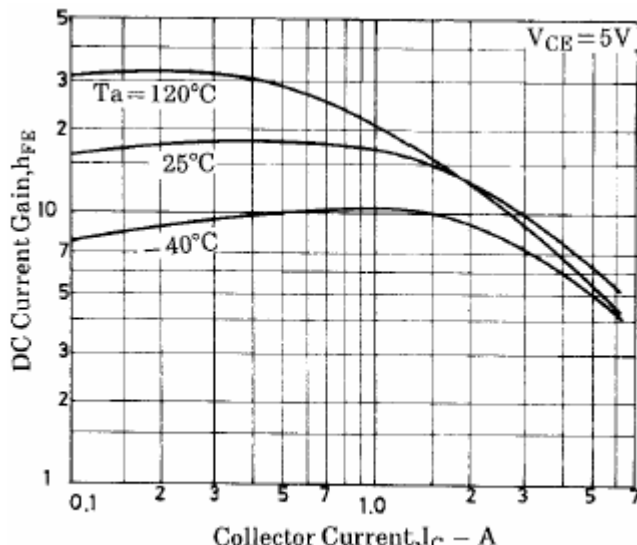


Fig.4 DC current Gain

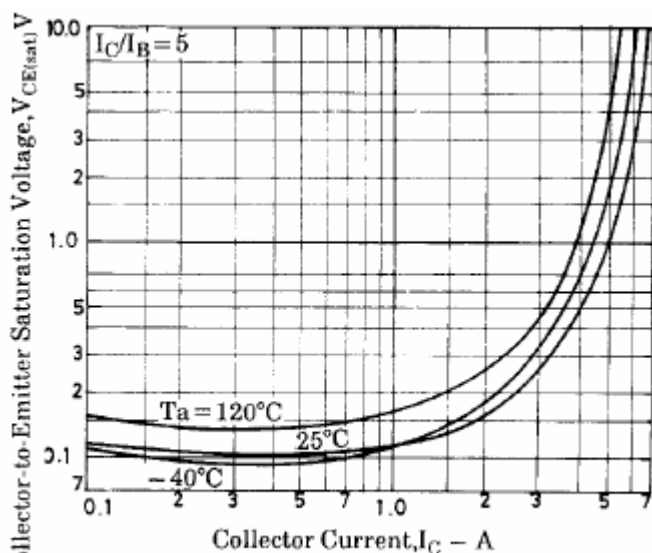


Fig.5 Collector-Emitter Saturation Voltage

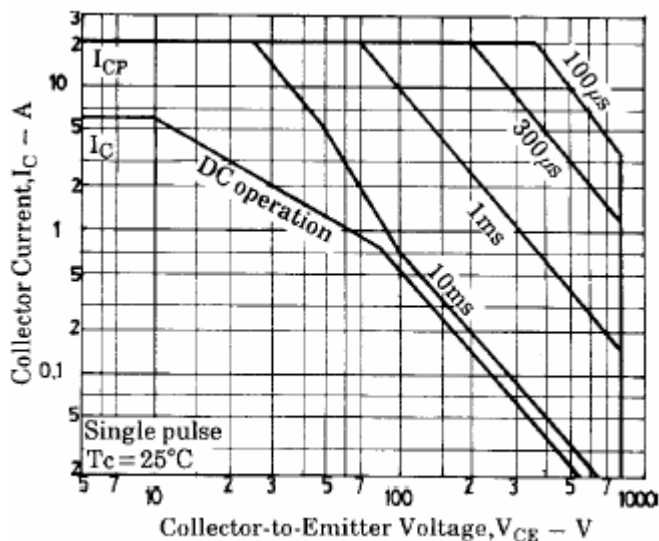


Fig.6 Safe Operating Area