WR0584 ṂṂÞ QSQ ÆṀч s ‖ ㄱ Silicon NPN transistor in a TO-251 Plastic Package.

Нч ⊐ я ∪ ı ᵶ ɔ ╙ ⊐ ᵪ ḭ ' ı ‖ Ḅ ⚮ ᷓ ᵶ ɻ ό/ Ã ʜ ᾽Н ᵱ ð
Low $V_{CE(sat)}$, high current and high $f_T$, excellent linearity of $h_{FE}$, fast switching time.

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Relay drivers, high-speed inverters, and other general high-current switching applications.

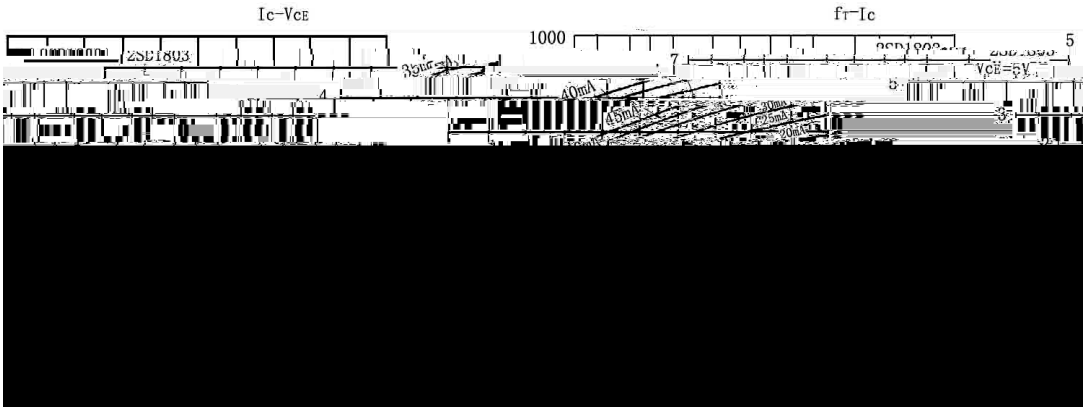
## / Absolute Maximum Ratings(Ta=25 )

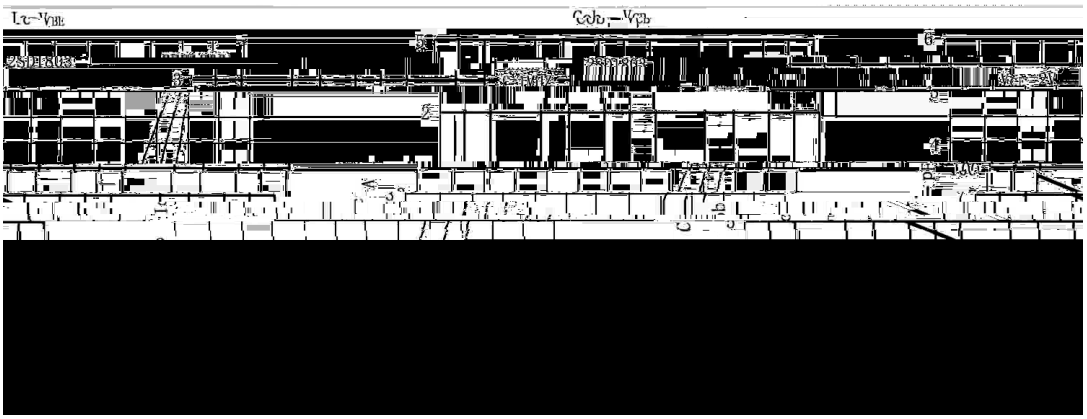
| v ̈Ω<br>Parameter | ϒ N<br>Symbol | ̈Ω Ö<br>Rating | D Ч<br>Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | 60 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | 50 | V |
| Emitter to Base Voltage | $V_{EBO}$ | 6 | V |
| Collector Current - Continuous | $I_C$ | 5 | A |
| Collector Current – Continuous(Pulse) | $I_{CP}$ | 8 | A |
| Collector Power Dissipation | $P_C$ | 1.0 | W |
| Collector Power Dissipation | $P_C$(Tc=25 ) | 20 | W |
| Junction Temperature | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

## / Electrical Characteristics(Ta=25 )

| v ̈Ω<br>Parameter | ϒ N<br>Symbol | Ш ː ϯ ϒ<br>Test Conditions | ω ɳ Ö<br>Min | Ɛ ʒ Ö<br>Typ | ω ᶻ Ö<br>Max | D Ч<br>Unit |
|---|---|---|---|---|---|---|
| Collector to Base Breakdown Voltage | $V_{CBO}$ | $I_C$=10μA $I_E$=O | 60 | | | V |
| Collector to Emitter Breakdown Voltage | $V_{CBO}$ | $I_C$=1mA $R_{BE}$=∞ | 50 | | | V |
| Emitter to Base Breakdown Voltage | $V_{EBO}$ | $I_E$=10μA $I_C$=0 | 6 | | | V |
| Collector Cut-Off Current | $I_{CBO}$ | $V_{CB}$=40V $I_E$=0 | | | 1.0 | μA |
| Emitter Cut-Off Current | $I_{EBO}$ | $V_{EB}$=4.0V $I_C$=0 | | | 1.0 | μA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}$=2.0V $I_C$=0.5A | 70 | | 400 | |
| | $h_{FE(2)}$ | $V_{CE}$=2.0V $I_C$=4.0A | 35 | | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C$=3.0A $I_B$=0.15A | | 0.22 | 0.4 | V |
| Base to Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C$=3.0A $I_B$=0.15A | | 0.95 | 1.3 | V |
| Transition Frequency | $f_T$ | $V_{CE}$=5.0V $I_C$=1.0A | | 180 | | MHZ |
| Collector output capacitance | $C_{ob}$ | $V_{CB}$=10V f=1MH$_Z$ | | 40 | | pF |
| Turn-On Time | $t_{on}$ | $I_C$=10$I_{B1}$=-10$I_{B2}$=2.0A | | 50 | | ns |
| Storage Time | $t_{stg}$ | | | 500 | | ns |
| Fall Time | $t_f$ | | | 20 | | ns |

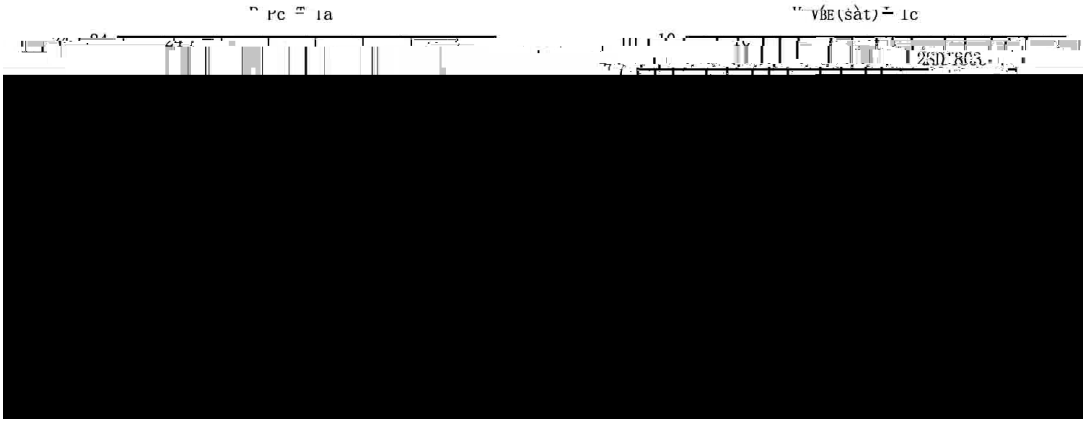
## / Electrical Characteristic Curve



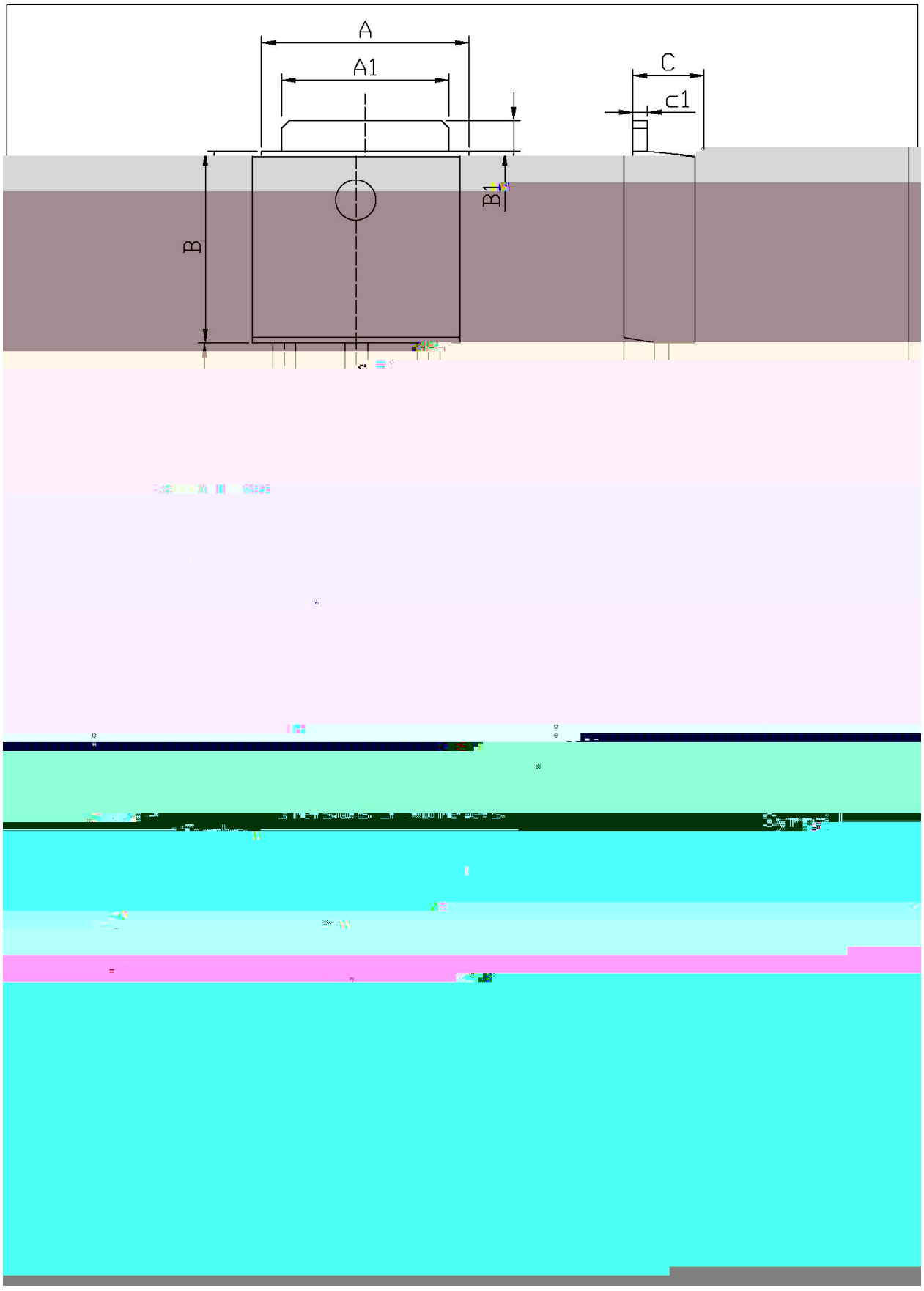





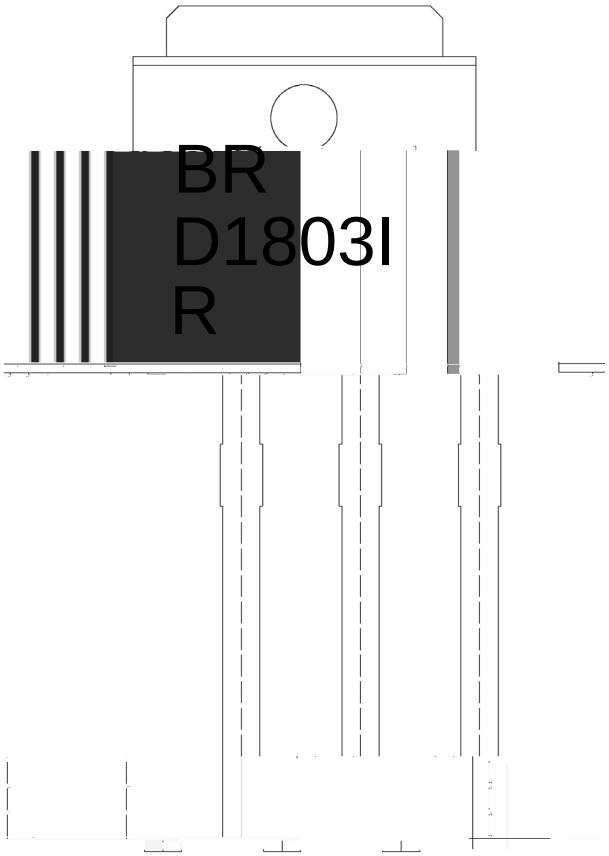




## / Package Dimensions



## / Marking Instructions




| | |
|---|---|
| ِ ˝ χ | |
| EU χ | ѭ ϗ ˥ Ђ |
| G4 ; 36L χ | ѭ ϳ ˣ Ђ |
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Note:

| | |
|---|---|
| BR: | Company Code |
| D1803I: | Product Type. |
| R: | $h_{FE}$ Classifications Symbol |
| ****: | Lot No. Code, code change with Lot No. |

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