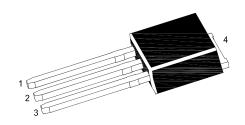
## **NPN Silicon Epitaxial Planar Transistor**

Motor drivers, hammer drivers and relay drivers applications



1.Base 2.Collector 3.Emitter 4.Collector TO-251 Plastic Package

### Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)

| Parameter  | Symbol           | Value         | Unit |
|--|------------------|---------------|------|
| Collector Base Voltage   | V <sub>CBO</sub> | 80            | V    |
| Collector Emitter Voltage  | V <sub>CEO</sub> | 60            | V    |
| Emitter Base Voltage   | $V_{EBO}$        | 6             | V    |
| Collector Current  | I <sub>C</sub>   | 3             | Α    |
| Collector Current (Pulse)  | I <sub>CP</sub>  | 6             | А    |
| Collector Dissipation Collector Dissipation @ T <sub>C</sub> = 25 °C | Pc               | 1<br>15       | W    |
| Junction Temperature   | TJ               | 150           | °C   |
| Storage Temperature Range  | Ts               | - 55 to + 150 | °C   |

## Characteristics at $T_a = 25$ °C

| Parameter   | Symbol               | Min.         | Max. | Unit |
|---|----------------------|--------------|------|------|
| DC Current Gain<br>at $V_{CE} = 2 \text{ V}$ , $I_C = 1 \text{ A}$<br>at $V_{CE} = 2 \text{ V}$ , $I_C = 2 \text{ A}$ | h <sub>FE</sub>      | 2000<br>1000 |      |      |
| Collector Base Breakdown Voltage at I <sub>C</sub> = 1 mA   | V <sub>(BR)CBO</sub> | 80           | -    | V    |
| Collector Emitter Breakdown Voltage at $I_C = 25 \text{ mA}$  | V <sub>(BR)CEO</sub> | 60           | -    | V    |
| Collector Cutoff Current at $V_{CB} = 60 \text{ V}$   | I <sub>CBO</sub>     | -            | 10   | μA   |
| Emitter Cutoff Current at $V_{EB} = 5 \text{ V}$  | I <sub>EBO</sub>     | -            | 2.5  | mA   |
| Collector Emitter Saturation Voltage at $I_C = 2 \text{ A}$ , $I_B = 4 \text{ mA}$                                    | V <sub>CE(sat)</sub> | -            | 1.5  | V    |
| Base Emitter Saturation Voltage at $I_C = 2 \text{ A}$ , $I_B = 4 \text{ mA}$   | V <sub>BE(sat)</sub> | -            | 2    | V    |





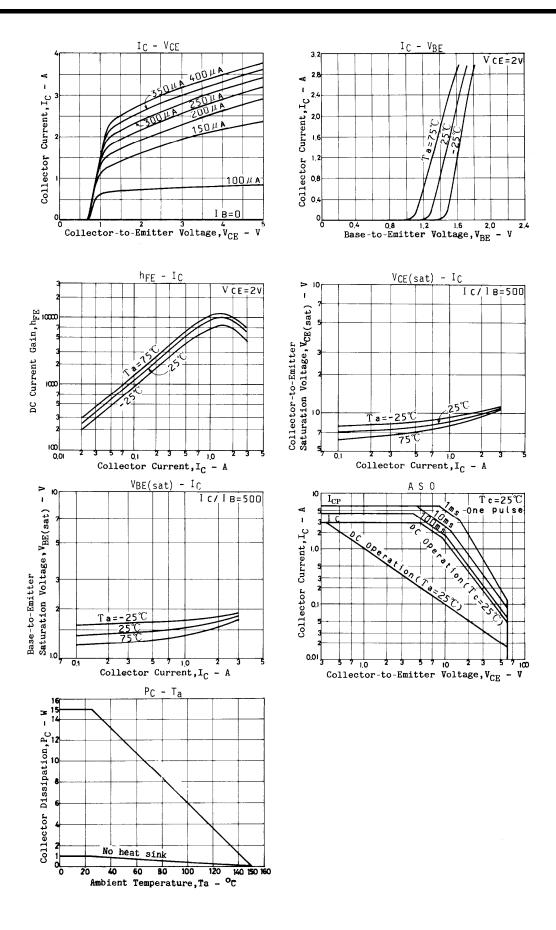
listed on the Hong Kong Stock Exchange, Stock Code: 724)







Dated: 10/08/2006





## SEMTECH ELECTRONICS LTD.

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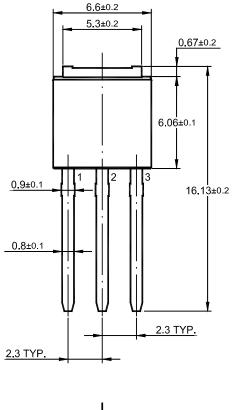


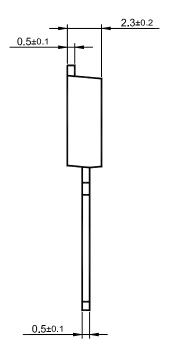


ISO/TS 16949 : 2002 ISO 14001:2004 Certificate No. 05103 Certificate No. 7116

7116 Certificate No. 0506098

### **TO-251 PACKAGE OUTLINE**









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