

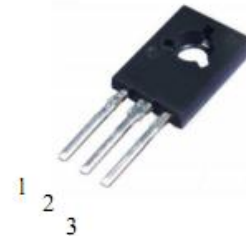
## High Voltage Fast-Switching NPN Power Transistor

### ◆ Features:

- ✧ High Switching Speed  
开关速度快
- ✧ Low forward voltage drop  
正向压降低
- ✧ High efficiency and low power loss  
高效低功耗
- ✧ High current surge capability  
大电流浪涌能力强

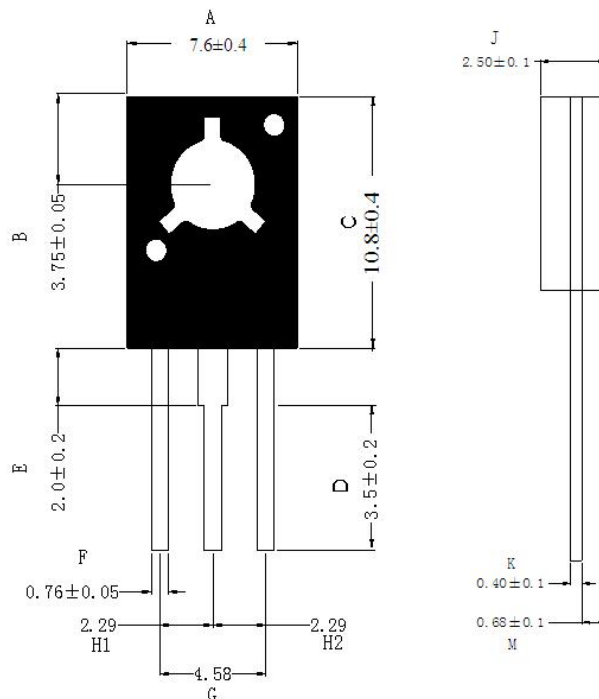
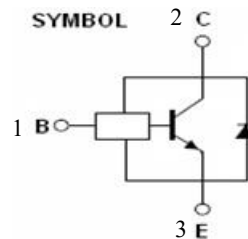


TO-126



### ◆ Applications

- ✧ Electronic Ballast  
电子镇流器
- ✧ Switching Mode Power Supply  
开关电源
- ✧ Motor Controls  
电机控制
- ✧ Solenoid/Relay drivers and Deflection circuits applications  
电磁阀/继电器驱动器和偏转电路应用



TO-126

单位: mm

**High Voltage Fast-Switching NPN Power Transistor****◆ Absolute Maximum Ratings (Tc=25°C)**

| Symbol   | Parameters                                      | Ratings           | Unit |
|----------|-------------------------------------------------|-------------------|------|
| VCBO     | Collector-Base Voltage<br>集电极 - 基极电压            | <b>700</b>        | V    |
| VCEO     | Collector-Emitter Voltage<br>集电极 - 发射极电压        | <b>400</b>        | V    |
| VEBO     | Emitter-Base Voltage<br>发射极 - 基极电压              | <b>9</b>          | V    |
| Ic       | Collector Current-Continuous<br>集电极连续电流         | <b>2</b>          | A    |
| PC       | Collector Power Dissipation<br>耗散功率             | <b>30</b>         | W    |
| Tj       | Max.Operating junction temperature<br>最大结温      | <b>150</b>        | °C   |
| Tstg     | Storage Temperature<br>存储温度                     | <b>-55 ~ +150</b> | °C   |
| Rth(j-c) | Thermal Resistance, Junction to Case<br>结到外壳的热阻 | <b>4.17</b>       | °C/W |

**High Voltage Fast-Switching NPN Power Transistor**
**◆ Electrical characteristics** (Tc=25°C unless otherwise noted)

| Symbol               | Parameters                                                    | Min | Typ | Max | Units | Conditions                                            |
|----------------------|---------------------------------------------------------------|-----|-----|-----|-------|-------------------------------------------------------|
| I <sub>CBO</sub>     | Collector Cutoff Current<br>集电极截止电流                           |     | --  | 10  | μA    | V <sub>CE</sub> =650V, I <sub>B</sub> =0              |
| I <sub>EBO</sub>     | Emitter Cutoff Current<br>发射极截止电流                             |     | --  | 20  | μA    | V <sub>EB</sub> =9V, I <sub>C</sub> =0                |
| BV <sub>CEO</sub>    | Collector Emitter Sustaining<br>voltage(Note 1)<br>集电极发射极持续电压 | 400 |     |     | V     | I <sub>C</sub> =10mA, I <sub>B</sub> =0               |
| V <sub>CE(sat)</sub> | Collector Emitter Saturation<br>Voltage(Note 1)<br>集电极发射极饱和电压 |     |     | 0.6 | V     | I <sub>C</sub> =1.5A, I <sub>B</sub> =0.3A            |
| V <sub>BE(sat)</sub> | Base-Emitter Saturation<br>Voltage(Note 1)<br>基极发射极饱和电压       |     |     | 1.2 | V     | I <sub>C</sub> =1.5A, I <sub>B</sub> =0.3A            |
| h <sub>FE</sub>      | DC Current Gain(Note 1)<br>直流电流增益                             | 15  | --  | 35  |       | I <sub>C</sub> =0.1A, V <sub>CE</sub> =5V             |
| f <sub>T</sub>       | Current-Gain—Bandwidth<br>电流增益带宽                              | 5   | --  | --  | MHz   | V <sub>CE</sub> =10V,<br>I <sub>C</sub> =0.5A, f=1MHz |
| T <sub>s</sub>       | Period of storage<br>贮存时间                                     | 2   | --  | 8   | us    | I <sub>C</sub> =250mA, UI9600                         |
| T <sub>r</sub>       | Up time<br>上升时间                                               | --  | --  | 1   | us    |                                                       |
| T <sub>f</sub>       | Drop-out time<br>下降时间                                         | --  | --  | 1   | us    |                                                       |

Note 1: Pulse test: PW ≤ 300us , duty cycle ≤ 2%.