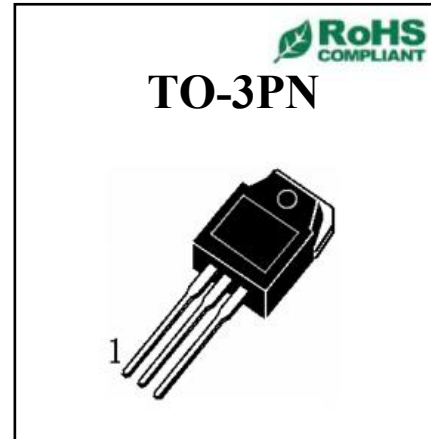


## High Voltage Fast-Switching NPN Power Transistor

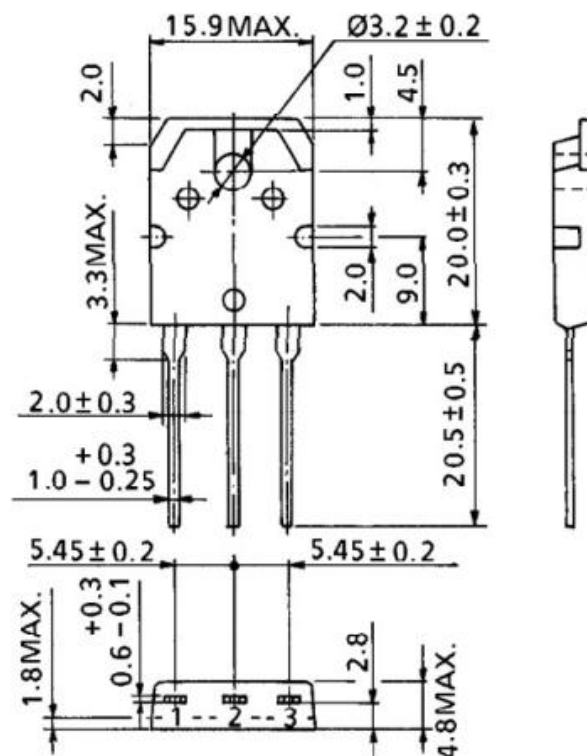
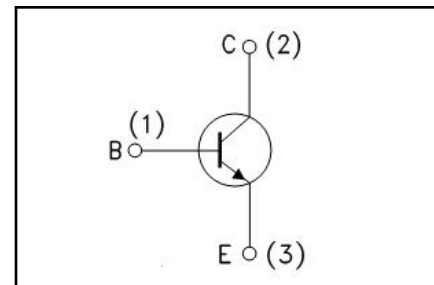
### ◆ Features:

- ✧ 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



### ◆ 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



## ◆ Absolute Maximum Ratings (Tc=25°C)

| Symbol   | Parameters                                      | Ratings    | Unit |
|----------|-------------------------------------------------|------------|------|
| VCBO     | Collector-Base Voltage<br>集电极 - 基极电压            | 700        | V    |
| VCEO     | Collector-Emitter Voltage<br>集电极 - 发射极电压        | 400        | V    |
| VEBO     | Emitter-Base Voltage<br>发射极 - 基极电压              | 9          | V    |
| Ic       | Collector Current-Continuous<br>集电极连续电流         | 8          | A    |
| IB       | Base Current-Continuous<br>基极连续电流               | 4          | A    |
| PC       | Collector Power Dissipation<br>耗散功率             | 125        | W    |
| Tj       | Max.Operating junction temperature<br>最大结温      | 150        | °C   |
| Tstg     | Storage Temperature<br>存储温度                     | -55 ~ +150 | °C   |
| Rth(j-c) | Thermal Resistance, Junction to Case<br>结到外壳的热阻 | 1.0        | °C/W |

# ◆ 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> =700V, I <sub>B</sub> =0              |
| I <sub>EBO</sub>     | Emitter Cutoff Current<br>发射极截止电流                          |     | --  | 10  | uA    | V <sub>EB</sub> =9V, I <sub>C</sub> =0                |
| BV <sub>CEO</sub>    | Collector Emitter Sustaining voltage(Note 1)<br>集电极发射极持续电压 | 400 |     |     | V     | I <sub>C</sub> =5mA, I <sub>B</sub> =0                |
| V <sub>CE(sat)</sub> | Collector Emitter Saturation Voltage(Note 1)<br>集电极发射极饱和电压 | --  | 0.3 | 1.0 | V     | I <sub>C</sub> =5A, I <sub>B</sub> =1A                |
| V <sub>BE(sat)</sub> | Base-Emitter Saturation Voltage(Note 1)<br>基极发射极饱和电压       | --  | 1.0 | 1.5 | V     | I <sub>C</sub> =3A, I <sub>B</sub> =0.6A              |
| h <sub>FE</sub>      | DC Current Gain(Note 1)<br>直流电流增益                          | 20  | --  | 35  |       | I <sub>C</sub> =2A, V <sub>CE</sub> =5V               |
| f <sub>T</sub>       | Current-Gain—Bandwidth<br>电流增益带宽                           | 4   | --  | --  | 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                                  | 2.0 | --  | 8.0 | us    | I <sub>C</sub> =500mA, 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%.