



## NPN高压开关晶体管/NPN High Voltage Switching Transistor

●特点: ■击穿电压稳定 ■开关速度快 ■安全工作区宽 ■符合ROHS规范

●FEATURES: ■HIGH VOLTAGE CAPABILITY ■HIGH SPEED SWITCHING ■WIDE SOA ■ROHS COMPLIANT

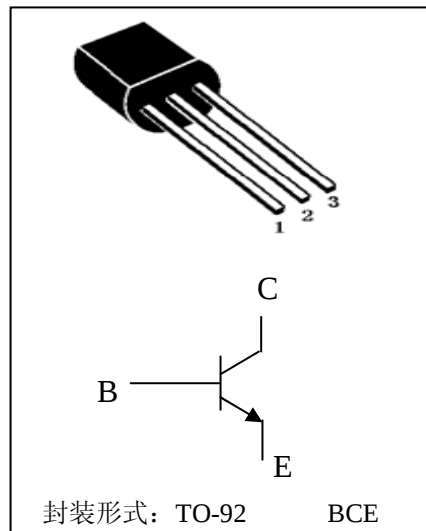
●应用 ■节能灯 ■电子镇流器 ■电子变压器等开关电路

●APPLICATION: ■FLUORESCENT LAMP ■ELECTRONIC BALLAST ■ELECTRONIC TRANSFORMER ECT.

●最大额定值 (TC=25℃)

●Absolute Maximum Ratings (Tc=25℃)

| 参数名称<br>PARAMETER                      | 符号<br>SYMBOL | 额定值<br>VALUE | 单位<br>UNIT |
|----------------------------------------|--------------|--------------|------------|
| 集电极-基极电压<br>Collector-Base Voltage     | VCBO         | 600          | V          |
| 集电极-发射极电压<br>Collector-Emitter Voltage | VCEO         | 410          | V          |
| 发射极-基极<br>Emitter-Base Voltage         | VEBO         | 9            | V          |
| 集电极电流<br>Collector Current             | Ic           | 1.2          | A          |
| 集电极耗散功率<br>Total Power Dissipation     | PC           | 16           | W          |
| 最高工作温度<br>Junction Temperature         | Tj           | 150          | ℃          |
| 贮存温度<br>Storage Temperature            | TsTg         | -55-150      | ℃          |



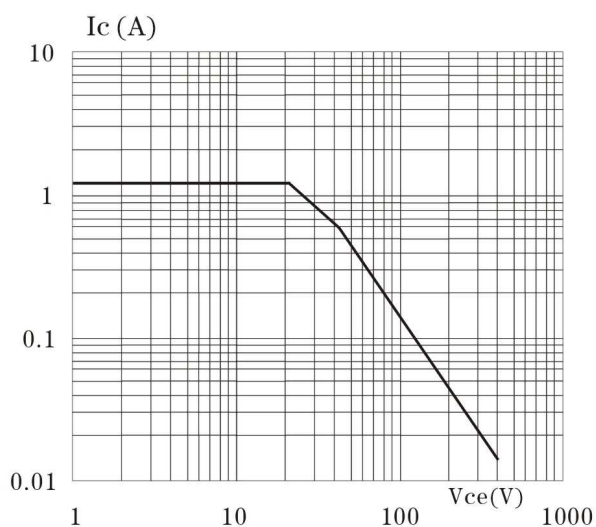
电特性 (TC=25℃)

Electrical Characteristics (Tc=25℃)

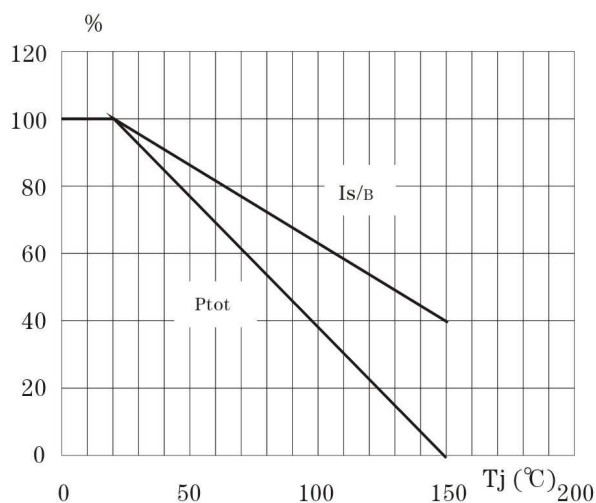
| 参数名称<br>CHARACTERISTICS                             | 符号<br>SYMBOL | 测试条件<br>TEST CONDITION         | 最小值<br>MIN | 最大值<br>MAX | 单位<br>UNIT |
|-----------------------------------------------------|--------------|--------------------------------|------------|------------|------------|
| 集电极-基极截止电流<br>Collector-Base Cutoff Current         | ICBO         | VCB=600V                       |            | 5          | uA         |
| 集电极-发射极截止电流<br>Collector-Emitter Cutoff Current     | ICEO         | VCE=400V, IB=0                 |            | 10         | uA         |
| 集电极-发射极电压<br>Collector-Emitter Voltage              | VCEO         | IC=10mA, IB=0                  | 410        |            | V          |
| 发射极-基极电压<br>Collector-Base Voltage                  | VEBO         | IE=1mA, IC=0                   | 9          |            | V          |
| 集电极-发射极饱和压降<br>Collector-Emitter Saturation Voltage | Vcesat       | IC=200mA, IB=40mA              |            | 0.3        |            |
|                                                     |              | IC=500mA, IB=100mA             |            | 0.45       | V          |
|                                                     |              | IC=1.0A, IB=0.25A              |            | 0.65       | V          |
| 发射极-基极饱和压降<br>Base-Emitter Saturation Voltage       | Vbesat       | IC=1.0A, IB=0.25A              |            | 1.2        | V          |
| 电流放大倍数<br>DC Current Gain                           | Hfe          | VCE=5V, IC=200uA               | 8          |            |            |
|                                                     |              | VCE=5V, IC=200mA               | 15         | 30         |            |
|                                                     |              | VCE=5V, IC=1A                  | 6          |            |            |
| 贮存时间<br>Storage Time                                | ts           | VCC=5V<br>IC=0.25A<br>(UI9600) | 1.5        | 2.5        | us         |
| 下降时间<br>falling time                                | tf           |                                |            | 0.8        |            |



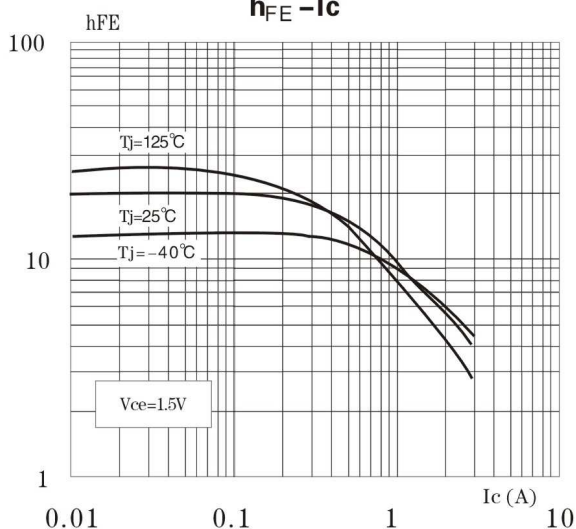
SOA(DC)



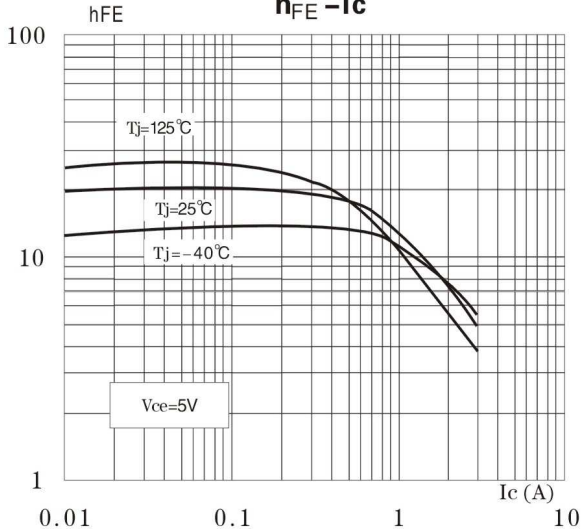
$P_c \propto T_j$



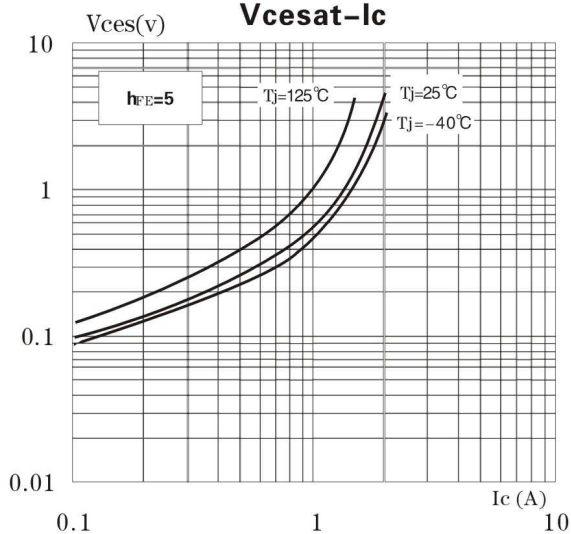
$h_{FE} - I_c$



$h_{FE} - I_c$



$V_{cesat} - I_c$



$V_{besat} - I_c$

