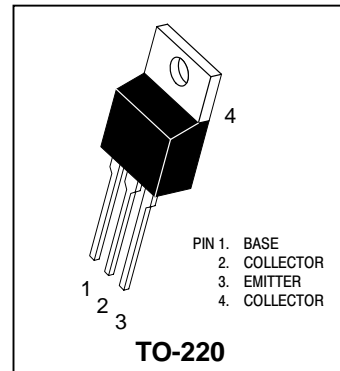


- **FEATURES:** ■ HIGH VOLTAGE CAPABILITY ■ HIGH SPEED SWITCHING ■ WIDE SOA
- **APPLICATION:** ■ FLUORESCENT LAMP ■ ELECTRONIC BALLAST ■ ELECTRONIC TRANSFORMER
 ■ SWITCH MODE POWER SUPPLY

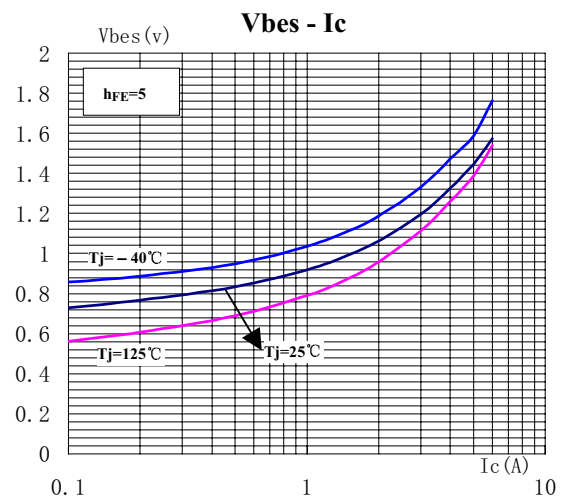
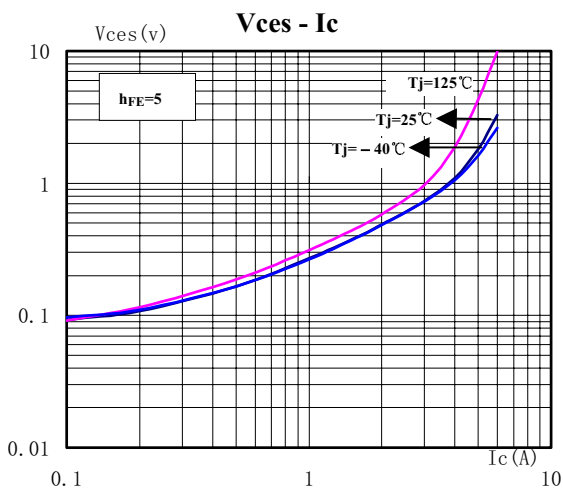
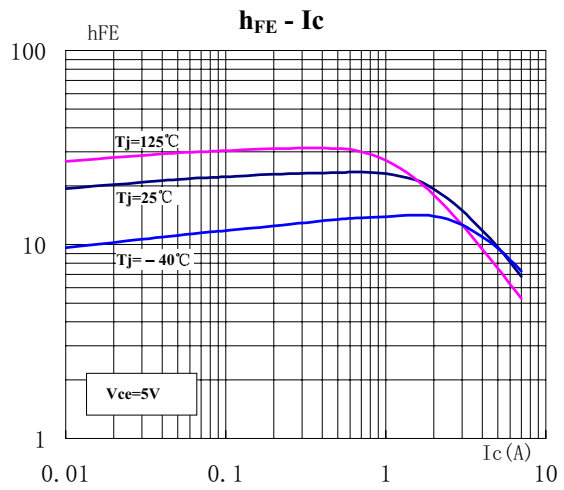
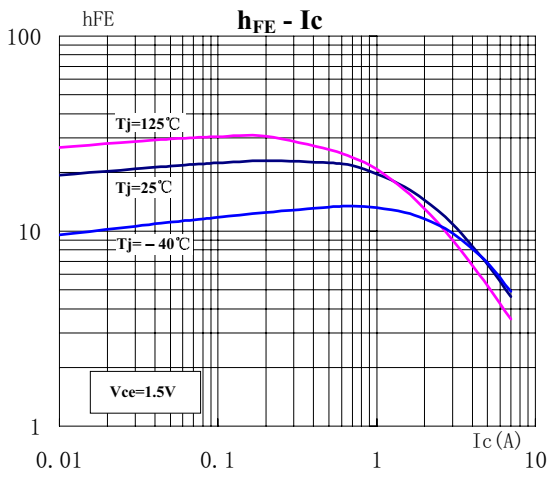
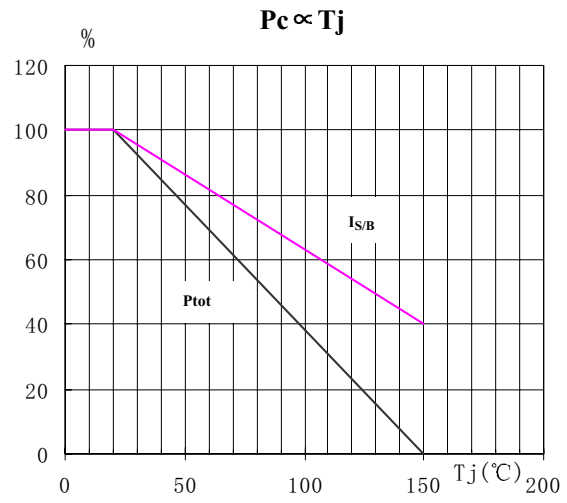
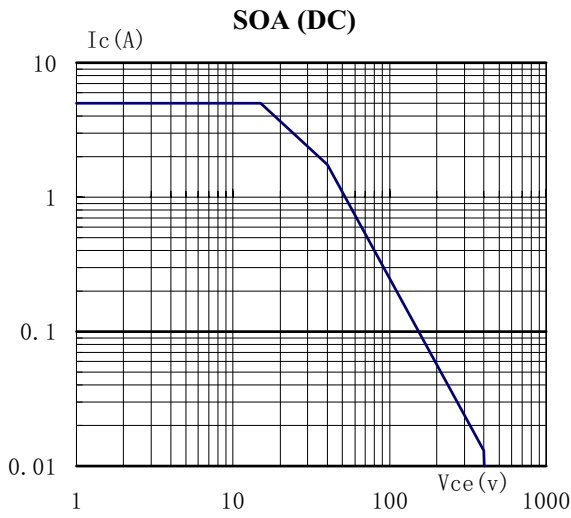
● **Absolute Maximum Ratings (Tc=25°C)** **TO-220**

| PARAMETER | SYMBOL | VALUE | UNIT |
|---------------------------|-----------|---------|------|
| Collector-Base Voltage | V_{CBO} | 700 | V |
| Collector-Emitter Voltage | V_{CEO} | 400 | V |
| Emitter- Base Voltage | V_{EBO} | 9 | V |
| Collector Current | I_C | 5.0 | A |
| Total Power Dissipation | P_C | 75 | W |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature | T_{stg} | -65-150 | °C |



● **Electronic Characteristics (Tc=25°C)**

| CHARACTERISTICS | SYMBOL | TEST CONDITION | MIN | MAX | UNIT |
|--------------------------------------|-----------|--|-----|-----|---------|
| Collector-Base Cutoff Current | I_{CBO} | $V_{CB}=700V$ | | 100 | μA |
| Collector-Emitter Cutoff Current | I_{CEO} | $V_{CE}=400V, I_B=0$ | | 250 | μA |
| Collector-Emitter Voltage | V_{CEO} | $I_C=10mA, I_B=0$ | 400 | | V |
| Emitter -Base Voltage | V_{EBO} | $I_E=1mA, I_C=0$ | 9 | | V |
| Collector-Emitter Saturation Voltage | V_{ces} | $I_C=1.0A, I_B=0.2A$ | | 0.5 | V |
| | | $I_C=2.0A, I_B=0.4A$ | | 0.7 | |
| | | $I_C=4.0A, I_B=1.0A$ | | 1.5 | |
| Base-Emitter Saturation Voltage | V_{bes} | $I_C=2.0A, I_B=0.4A$ | | 1.5 | V |
| DC Current Gain | h_{FE} | $V_{CE}=5V, I_C=10mA$ | 8 | | |
| | | $V_{CE}=5V, I_C=1.0A$ | 10 | 40 | |
| | | $V_{CE}=5V, I_C=2.5A$ | 8 | | |
| Storage Time | t_s | $V_{CC}=250V,$ $I_C=5I_B;$ $I_{B1} = -I_{B2}=0.5A$ | | 3 | μS |
| Falling Time | t_f | | | 0.8 | |



TO-220 MECHANICAL DATA

UNIT: mm

| SYMBOL | min | nom | max | SYMBOL | min | nom | max |
|--------|-------|-----|-------|--------|-------|------|-------|
| A | 4.47 | | 4.67 | e | | 2.54 | |
| A1 | 2.52 | | 2.82 | e1 | 4.98 | | 5.18 |
| b | 0.71 | | 0.91 | F | 2.59 | | 2.89 |
| b1 | 1.17 | | 1.37 | L | 13.40 | | 13.80 |
| c | 0.31 | | 0.53 | L1 | 3.56 | | 3.96 |
| c1 | 1.17 | | 1.37 | ϕ | 3.79 | | 3.89 |
| D | 10.01 | | 10.31 | | | | |
| E | 8.50 | | 8.90 | | | | |
| E1 | 12.06 | | 12.46 | | | | |

