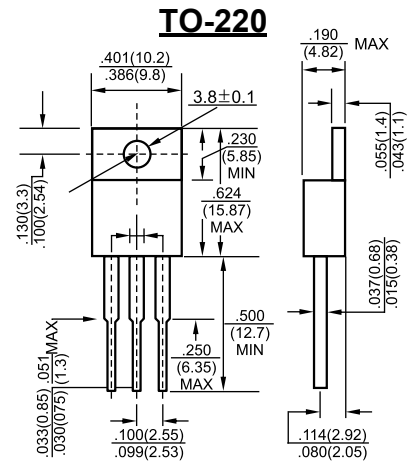


1. BASE
2. COLLECTOR
3. EMITTER



Features

- ✧ High Power Dissipation: $P_C=25W(T_C=25^\circ C)$
- ✧ Low voltage: $V_{CE(sat)}=-1.5V(Max)(I_C=-2A, I_B=-0.2A)$
- ✧ Collector metal(Fin)is Coverd with Mold Resin
- ✧ Complementary to 2SD2012

MAXIMUM RATINGS ($T_A=25^\circ C$ unless otherwise noted)

Dimensions in inches and (millimeters)

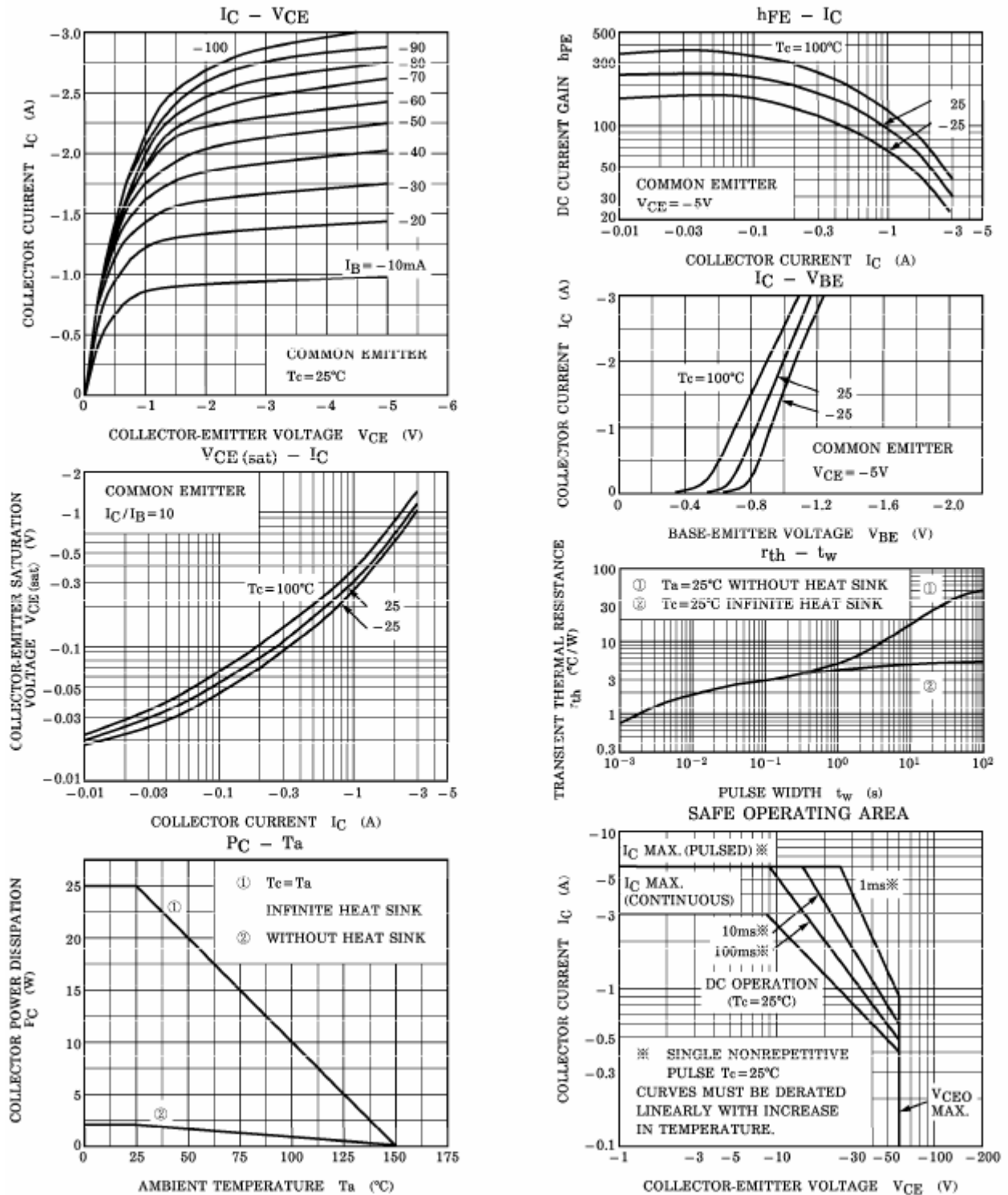
| Symbol | Parameter | Value | Units |
|-----------|-------------------------------|---------|------------|
| V_{CBO} | Collector-Base Voltage | -60 | V |
| V_{CEO} | Collector-Emitter Voltage | -60 | V |
| V_{EBO} | Emitter-Base Voltage | -7 | V |
| I_C | Collector Current -Continuous | -3 | A |
| P_C | Collector Dissipation | 2 | W |
| T_J | Junction Temperature | 150 | $^\circ C$ |
| T_{stg} | Storage Temperature | -55-150 | $^\circ C$ |

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ C$ unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|------------------------------|-----|-----|------|---------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=-100\mu A, I_E=0$ | -60 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=-50mA, I_B=0$ | -60 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=-100\mu A, I_C=0$ | -7 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=-60V, I_E=0$ | | | -10 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=-7V, I_C=0$ | | | -10 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE}=-5V, I_C=-0.5A$ | 100 | | 320 | |
| | $h_{FE(2)}$ | $V_{CE}=-5V, I_C=-2A$ | 15 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=-2A, I_B=-0.2A$ | | | -1.5 | V |
| Base-emitter voltage | V_{BE} | $V_{CE}=-5V, I_C=-0.5A$ | | | -1 | V |
| Transition frequency | f_T | $V_{CE}=-5V, I_C=-0.5A$ | | 9 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB}=-10V, I_E=0, f=1MHz$ | | 50 | | pF |



Typical Characteristics



| Package | Packing | Box Size L×W×H(mm) | Quantity(pcs/box) | Carton Size L×W×H(mm) | Quantity(pcs/carton) |
|---------|------------|-----------------------|-------------------|--------------------------|----------------------|
| TO-220 | 50pcs/Tube | 560×150×50 | 1000 | 570×290×180 | 5000 |