

FEATURES

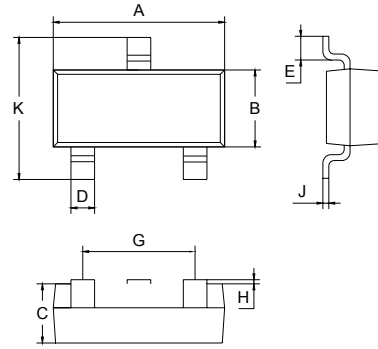
- High Collector Current.($I_C= 800\text{mA}$).
- Complementary To M8550.
- Excellent H_{FE} Linearity.
- High total power dissipation.($P_C=200\text{mW}$).

APPLICATIONS

- High Collector Current..

ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| M8050 | Y11 | SOT-23 |



| SOT-23 | | |
|----------------------|-------------|------|
| Dim | Min | Max |
| A | 2.70 | 3.10 |
| B | 1.10 | 1.50 |
| C | 1.0 Typical | |
| D | 0.4 Typical | |
| E | 0.35 | 0.48 |
| G | 1.80 | 2.00 |
| H | 0.02 | 0.1 |
| J | 0.1 Typical | |
| K | 2.20 | 2.60 |
| All Dimensions in mm | | |

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

| Symbol | Parameter | Value | Units |
|----------------|----------------------------------|-------------|------------------|
| V_{CBO} | Collector-Base Voltage | 40 | V |
| V_{CEO} | Collector-Emitter Voltage | 25 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current -Continuous | 800 | mA |
| P_C | Collector Dissipation | 200 | mW |
| T_j, T_{stg} | Junction and Storage Temperature | -55 to +150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|--|-----|-----|-----|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=100\mu\text{A}, I_E=0$ | 40 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=0.1\text{mA}, I_B=0$ | 25 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=100\mu\text{A}, I_C=0$ | 6 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=35\text{V}, I_E=0$ | | | 0.1 | μA |
| Collector cut-off current | I_{CEO} | $V_{CE}=20\text{V}, I_B=0$ | | | 0.1 | μA |
| DC current gain | h_{FE} | $V_{CE}=1\text{V}, I_C=5\text{mA}$ | 45 | | | |
| | | $V_{CE}=1\text{V}, I_C=100\text{mA}$ | 80 | | 300 | |
| | | $V_{CE}=1\text{V}, I_C=800\text{mA}$ | 40 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=800\text{mA}, I_B=80\text{mA}$ | | | 0.5 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C=800\text{mA}, I_B=80\text{mA}$ | | | 1.2 | V |
| Transition frequency | f_T | $V_{CE}=6\text{V}, I_C= 20\text{mA}$ $f=30\text{MHz}$ | 150 | | | MHz |

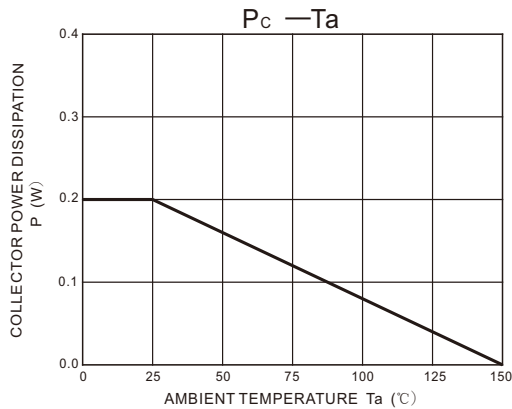
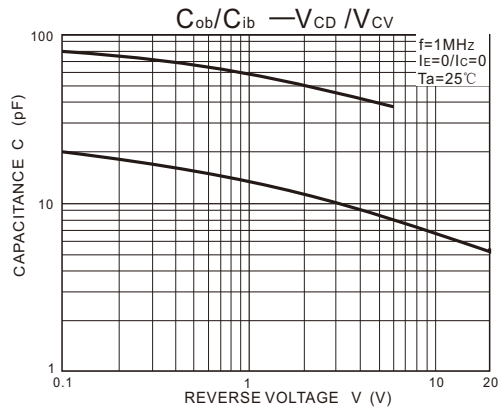
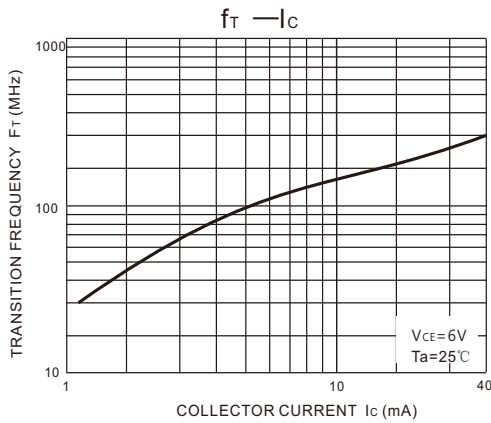
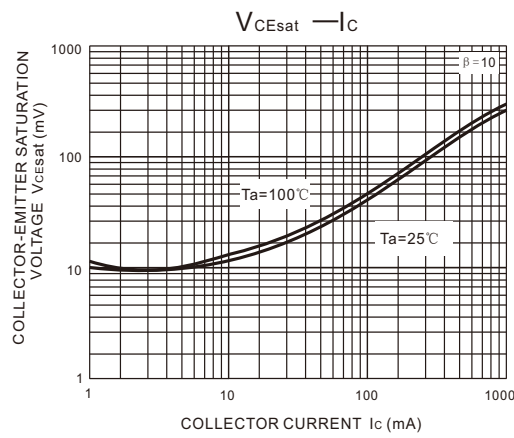
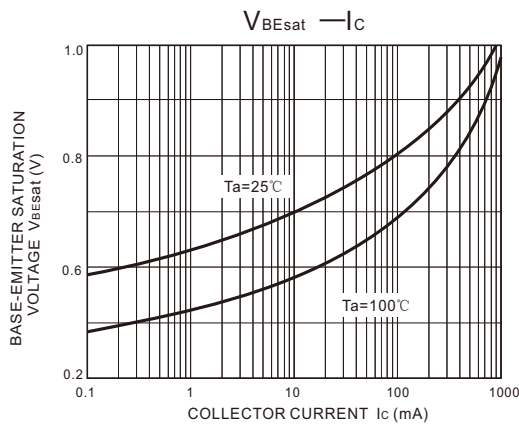
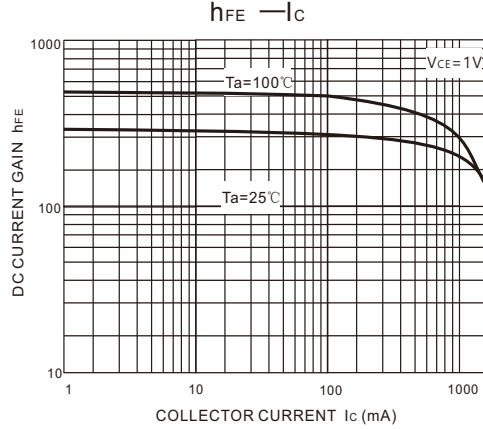
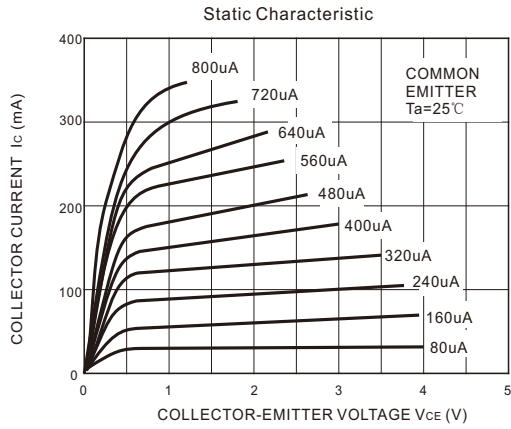
CLASSIFICATION OF $h_{FE(1)}$

| Rank | L | H |
|-------|--------|---------|
| Range | 80-200 | 200-300 |

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



Ratings and Characteristics Curve (TA=25°C unless otherwise noted)



| Package | Reel | Reel Size | Box | Box Size(mm) | Carton | Carton Size(mm) |
|---------|---------|-----------|-----------|--------------|------------|-----------------|
| SOT-23 | 3000pcs | 7inch | 45,000pcs | 203×203×195 | 180,000pcs | 438×438×220 |