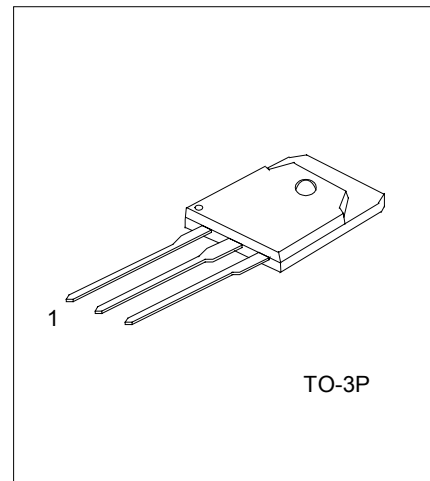


HIGH POWER AMPLIFIER APPLICATION

FEATURES

- * Complementary to 2SD718.
- * Recommended for 45 ~ 50W Audio Frequency Amplifier Output Stage.



1: BASE 2: COLLECTOR 3: EMITTER

*Pb-free plating product number: 2SB688L

ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|--|-----------|------------|------|
| Collector-Base Voltage | V_{CBO} | -120 | V |
| Collector-Emitter Voltage | V_{CEO} | -120 | V |
| Emitter Base Voltage | V_{EBO} | -5 | V |
| Collector Current | I_C | -10 | A |
| Base Current | I_B | -1 | A |
| Collector Power Dissipation (T _C =25°C) | P_C | 80 | W |
| Junction Temperature | T_J | 150 | °C |
| Storage Temperature Range | T_{STG} | -40 ~ +150 | °C |

ELECTRICAL CHARACTERISTICS

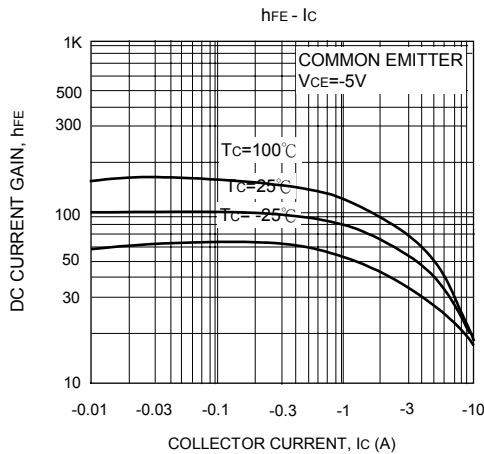
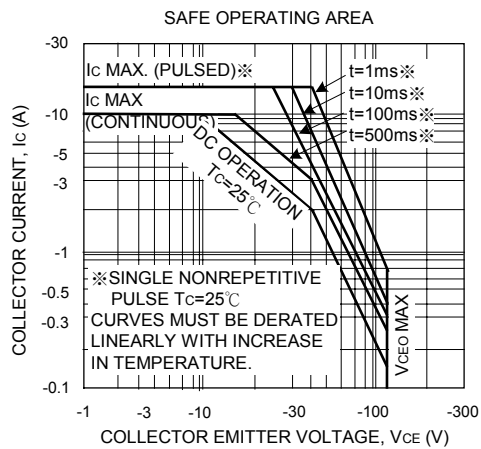
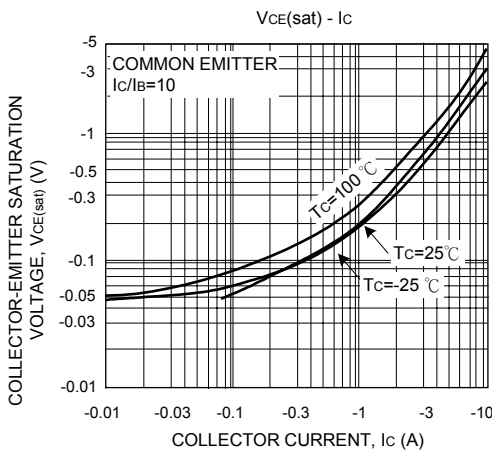
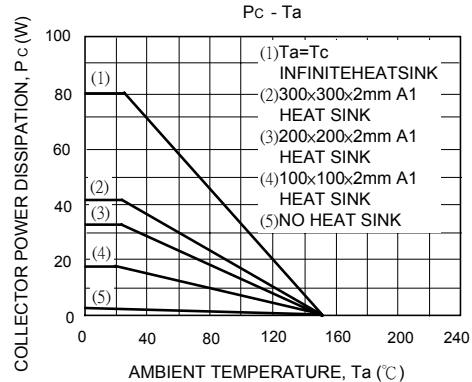
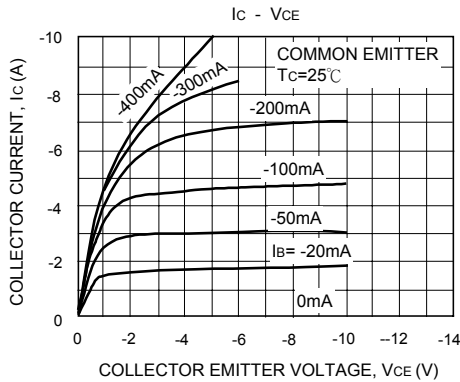
(Ta=25°C)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|------------------------------------|------|-----|------|------|
| Collector Cut-off Current | I_{CBO} | $V_{CB} = -120V, I_E = 0$ | | | -10 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB} = -5V, I_C = 0$ | | | -10 | μA |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = -50mA, I_B = 0$ | -120 | | | V |
| DC Current Gain | h_{FE} | $V_{CE} = -5V, I_C = -1A$ | 55 | | 160 | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -5A, I_B = -0.5A$ | | | -2.5 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE} = -5A, I_C = -5A$ | | | -1.5 | V |
| Transition Frequency | f_T | $V_{CE} = -5A, I_C = -1A$ | | 10 | | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB} = -10V, I_E = 0, f = 1MHz$ | | 280 | | pF |

CLASSIFICATION OF hFE

| RANK | R | O |
|-------|----------|----------|
| RANGE | 55 ~ 110 | 80 ~ 160 |

TYPICAL CHARACTERISTICS



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