

**DESCRIPTION**

2SC3244 is a silicon NPN epitaxial type transistor designed with high collector dissipation, high voltage.  
Complementary with 2SA1284.

**FEATURE**

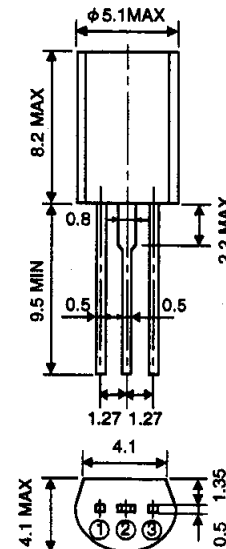
- High voltage  $V_{CE0}=100V$
- High peak collector current  $I_{CM}=800mA$
- High gain band width product.  $f_T=130MHz$  (typ)
- High collector dissipation  $P_C=900mW$

**APPLICATION**

Drive for 20 to 40W amplifier, relay drive, power supply application.

**OUTLINE DRAWING**

Unit:mm



**TERMINAL CONNECTOR**

- ① : EMITTER      EIAJ : —
- ② : COLLECTOR    JEDEC : —
- ③ : BASE

Note)

The dimension without tolerance represent central value.

**MAXIMUM RATINGS (Ta=25°C)**

| Symbol           | Parameter                      | Ratings     | Unit |
|------------------|--------------------------------|-------------|------|
| V <sub>CB0</sub> | Collector to Base voltage      | 100         | V    |
| V <sub>EB0</sub> | Emitter to Base voltage        | 5           | V    |
| V <sub>CE0</sub> | Collector to Emitter voltage   | 100         | V    |
| I <sub>CM</sub>  | Peak collector current         | 800         | mA   |
| I <sub>C</sub>   | Collector current              | 500         | mA   |
| P <sub>C</sub>   | Collector dissipation(Ta=25°C) | 900         | mW   |
| T <sub>J</sub>   | Junction temperature           | +150        | °C   |
| T <sub>stg</sub> | Storage temperature            | -55 to +150 | °C   |

**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

| Symbol               | Parameter                    | Test conditions                                 | Limits |      |     | Unit |
|----------------------|------------------------------|---|--------|------|-----|------|
|                      |                              |   | Min    | Typ  | Max |      |
| V <sub>(BR)CBO</sub> | C to B break down voltage    | I <sub>C</sub> =10μA, I <sub>E</sub> =0         | 100    |      |     | V    |
| V <sub>(BR)EBO</sub> | E to B break down voltage    | I <sub>E</sub> =10μA, I <sub>C</sub> =0         | 5      |      |     | V    |
| V <sub>(BR)CEO</sub> | C to E break down voltage    | I <sub>C</sub> =1mA, R <sub>BE</sub> =∞         | 100    |      |     | V    |
| I <sub>CB0</sub>     | Collector cut off current    | V <sub>CB</sub> =50V, I <sub>E</sub> =0         |        |      | 0.5 | μA   |
| I <sub>EB0</sub>     | Emitter cut off current      | V <sub>EB</sub> =2V, I <sub>C</sub> =0          |        |      | 0.5 | μA   |
| h <sub>FE</sub> *    | DC forward current gain      | V <sub>CE</sub> =10V, I <sub>C</sub> =10mA      | 55     |      | 300 | —    |
| V <sub>CE(sat)</sub> | C to E saturation voltage    | I <sub>C</sub> =150mA, I <sub>B</sub> =15mA     |        | 0.15 | 0.5 | V    |
| f <sub>T</sub>       | Gain band width product      | V <sub>CE</sub> =10V, I <sub>E</sub> =-10mA     |        | 130  |     | MHz  |
| C <sub>ob</sub>      | Collector output capacitance | V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz |        | 6.5  |     | pF   |

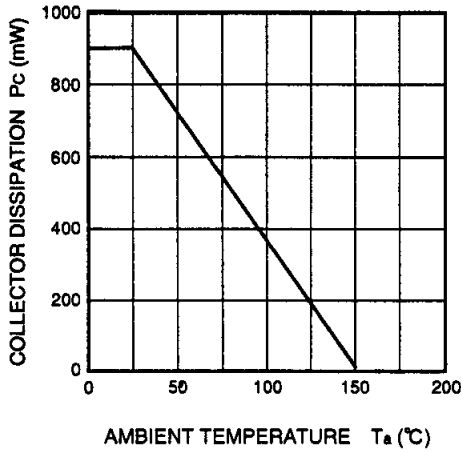
\* : It shows h<sub>FE</sub> classification in right table

| item            | C         | D         | E          |
|-----------------|-----------|-----------|------------|
| h <sub>FE</sub> | 55 to 110 | 90 to 180 | 150 to 300 |

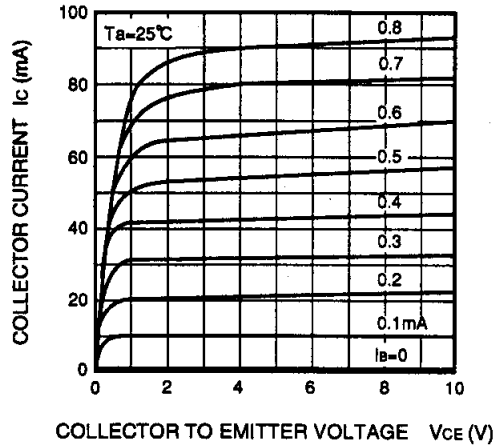
FOR LOW FREQUENCY POWER AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPE

**TYPICAL CHARACTERISTICS**

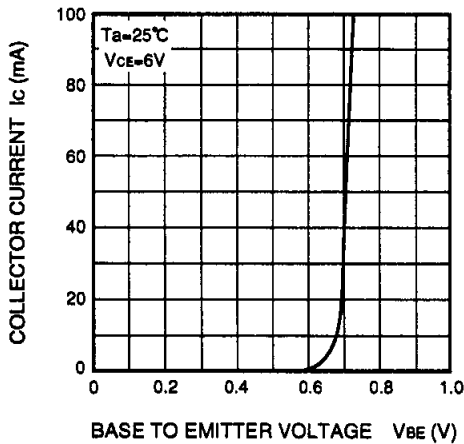
**COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE**



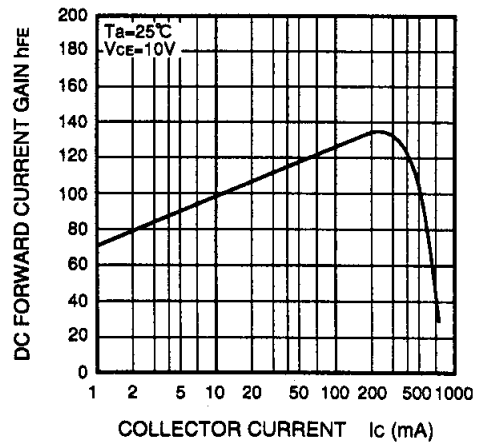
**COMMON EMITTER OUTPUT**



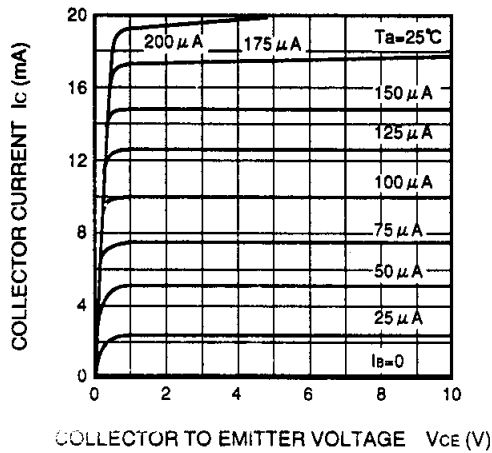
**COMMON EMITTER TRANSFER**



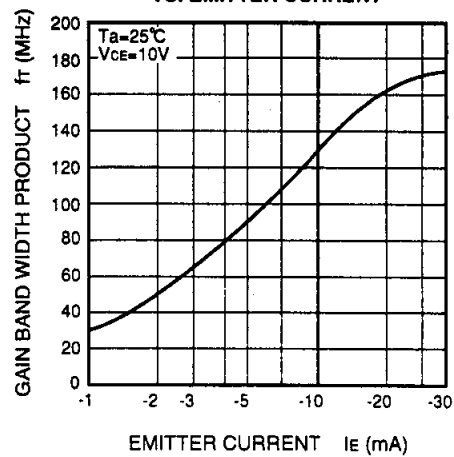
**DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT**



**COMMON EMITTER OUTPUT**

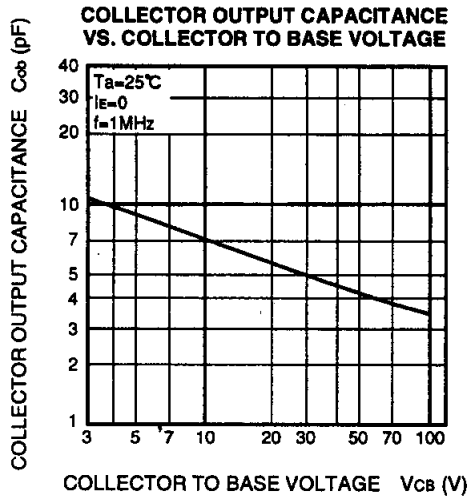


**GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT**



FOR LOW FREQUENCY POWER AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPE

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