

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07260 DT-33-17

**2SA1144**

SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

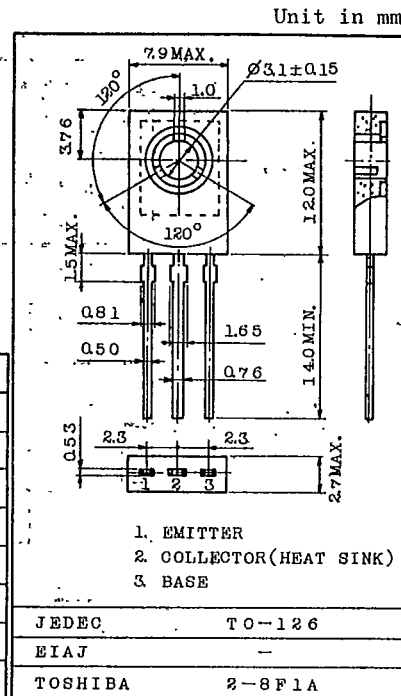
## AUDIO FREQUENCY AMPLIFIER APPLICATIONS.

## FEATURES:

- Complementary to 2SC2704.
- Small Collector Output Capacitance :  $C_{ob}=2.5\text{pF}$ (Typ.)
- High Transition Frequency :  $f_T=200\text{MHz}$ (Typ.)

MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ )

| CHARACTERISTIC  | SYMBOL    | RATING  | UNIT             |
|---|-----------|---------|------------------|
| Collector-Base Voltage                                    | $V_{CB0}$ | -150    | V                |
| Collector-Emitter Voltage                                 | $V_{CE0}$ | -150    | V                |
| Emitter-Base Voltage                                      | $V_{EB0}$ | -5      | V                |
| Collector Current   | $I_C$     | -50     | mA               |
| Base Current  | $I_B$     | -5      | mA               |
| Collector Power Dissipation<br>( $T_c=25^\circ\text{C}$ ) | $P_C$     | 10      | W                |
| Junction Temperature                                      | $T_j$     | 150     | $^\circ\text{C}$ |
| Storage Temperature Range                                 | $T_{stg}$ | -55~150 | $^\circ\text{C}$ |



Mounting Kit No. AC46C  
Weight : 0.72g

ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

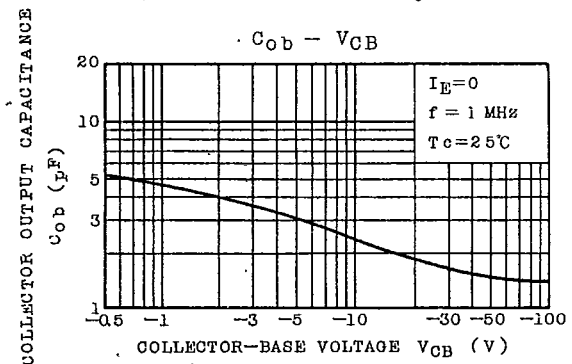
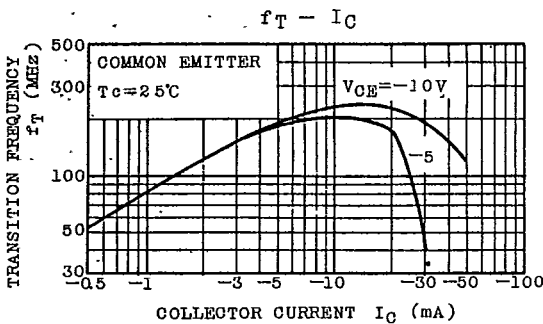
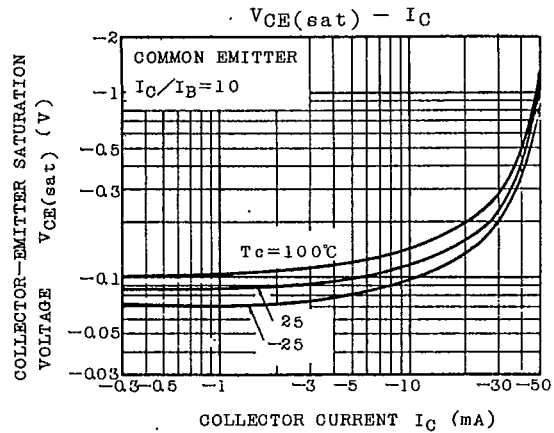
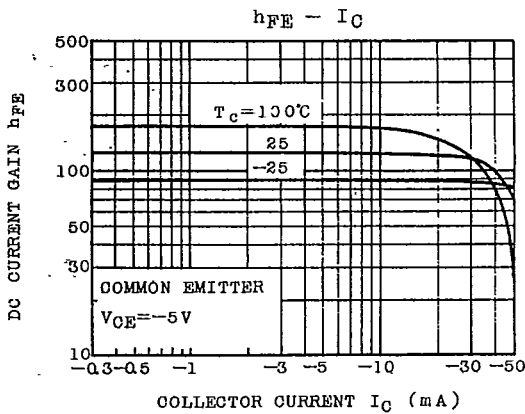
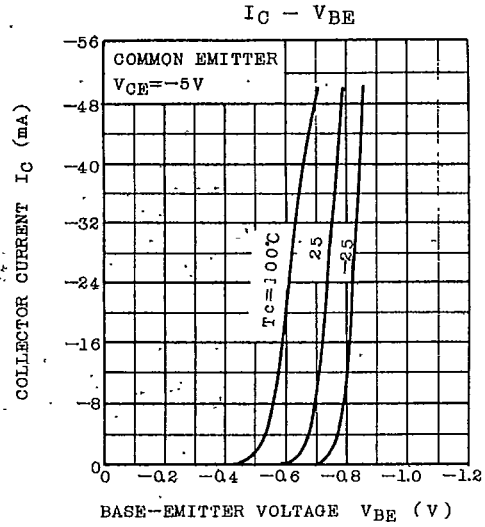
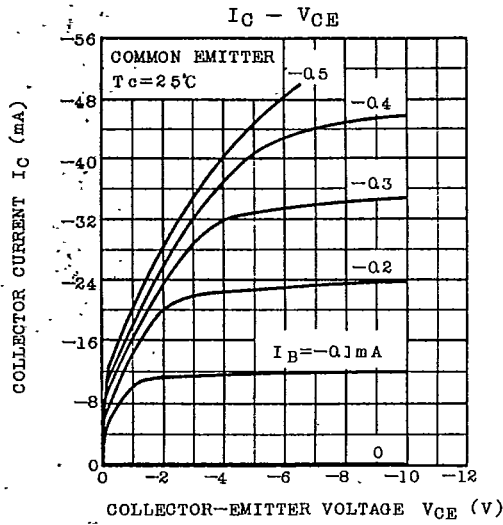
| CHARACTERISTIC                       | SYMBOL             | TEST CONDITION                             | MIN. | TYP. | MAX. | UNIT          |
|--------------------------------------|--------------------|--|------|------|------|---------------|
| Collector Cut-off Current            | $I_{CB0}$          | $V_{CB}=-150\text{V}, I_E=0$               | -    | -    | -0.1 | $\mu\text{A}$ |
| Emitter Cut-off Current              | $I_{EB0}$          | $V_{EB}=-5\text{V}, I_C=0$                 | -    | -    | -0.1 | $\mu\text{A}$ |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$      | $I_C=-1\text{mA}, I_B=0$                   | -150 | -    | -    | V             |
| DC Current Gain                      | $h_{FE}$<br>(Note) | $V_{CE}=-5\text{V}, I_C=-10\text{mA}$      | 80   | -    | 240  |               |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$      | $I_C=-10\text{mA}, I_B=-1\text{mA}$        | -    | -    | -1.0 | V             |
| Base-Emitter Voltage                 | $V_{BE}$           | $V_{CE}=-5\text{V}, I_C=-10\text{mA}$      | -    | -    | -0.8 | V             |
| Transition Frequency                 | $f_T$              | $V_{CE}=-10\text{V}, I_C=-10\text{mA}$     | -    | 200  | -    | MHz           |
| Collector Output Capacitance         | $C_{ob}$           | $V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$ | -    | 2.5  | -    | pF            |

Note:  $h_{FE}$  Classification 0:80~160, Y:120~240

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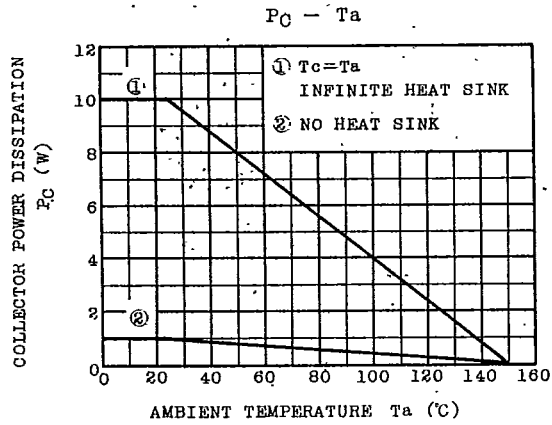


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