

**FOR LOW FREQUENCY POWER AMPLIFY APPLICATION  
SILICON PNP EPITAXIAL TYPE**

**DESCRIPTION**

2SA1284 is a silicon PNP epitaxial type transistor designed for high voltage application.

Complementary with 2SC3244.

**FEATURE**

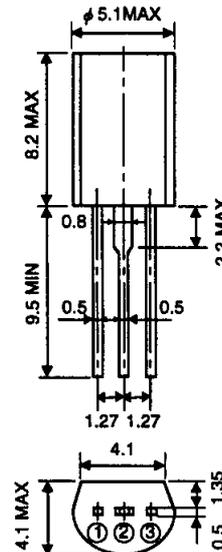
- High voltage  $V_{CE0} = -100V$
- High peak collector current  $I_{CM} = -800mA$
- High gain band width product  $f_T = 130MHz$ (typ).
- High collector dissipation  $P_C = 900mW$

**APPLICATION**

For 20 to 40W amp complimentary drive, 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>stp</sub>	Storage temperature	-55 to +150	°C

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

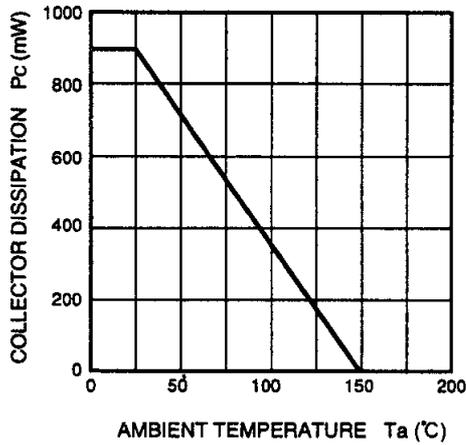
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V <sub>(BR)CBO</sub>	C to B break down voltage	I <sub>C</sub> = -10 μA, I <sub>E</sub> = 0	-100			V
V <sub>(BR)EBO</sub>	E to B break down voltage	I <sub>E</sub> = -10 μA, I <sub>C</sub> = 0	-5			V
V <sub>(BR)CEO</sub>	C to E break down voltage	I <sub>C</sub> = -1mA, R <sub>BE</sub> = ∞	-100			V
I <sub>CBO</sub>	Collector cut off current	V <sub>CB</sub> = -50 V, I <sub>E</sub> = 0			-0.5	μA
I <sub>EBO</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		11		pF

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

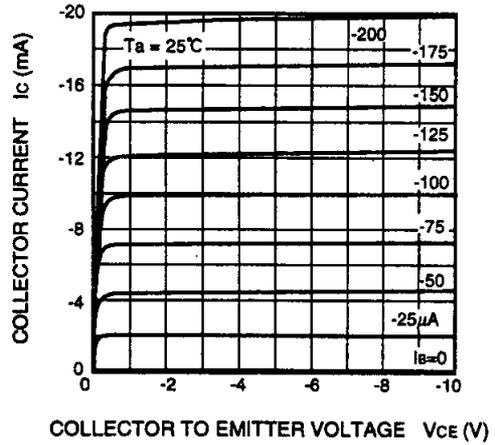
Item	C	D	E
h <sub>FE</sub>	55 to 110	90 to 180	150 to 300

TYPICAL CHARACTERISTICS

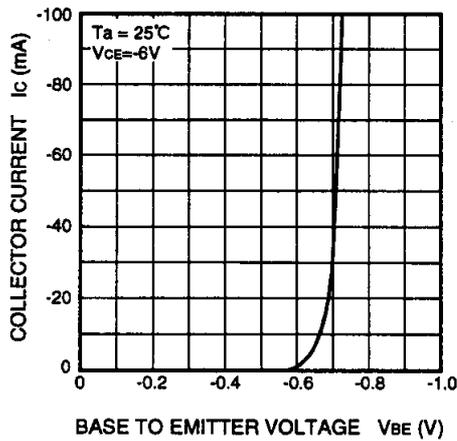
COLLECTOR DISSIPATION VS.  
AMBIENT TEMPERATURE



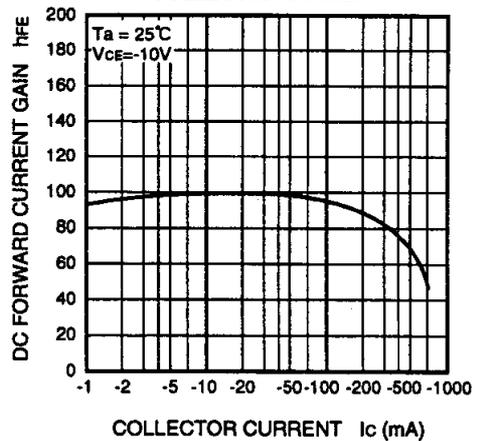
COMMON EMITTER OUTPUT



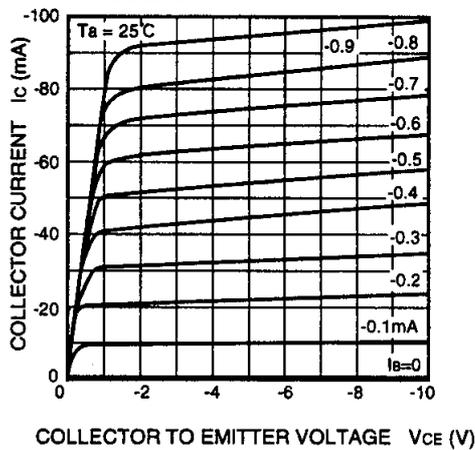
COMMON EMITTER TRANSFER



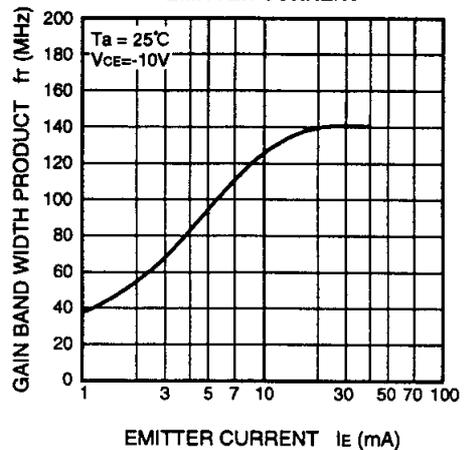
DC FORWARD CURRENT GAIN VS.  
COLLECTOR CURRENT



COMMON EMITTER OUTPUT

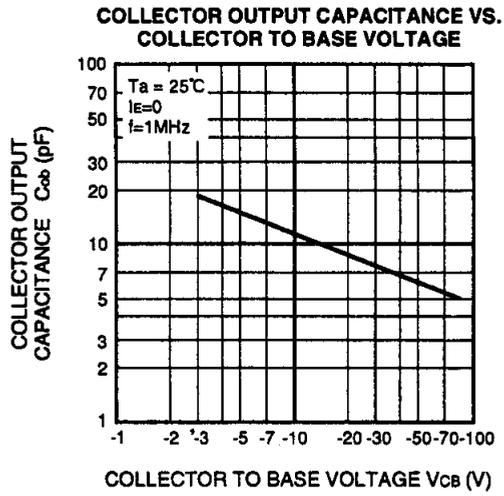


GAIN BAND WIDTH PRODUCT VS.  
EMITTER CURRENT



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SILICON PNP EPITAXIAL TYPE

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