〈SMALL-SIGNAL TRANSISTOR〉

2SA1284

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

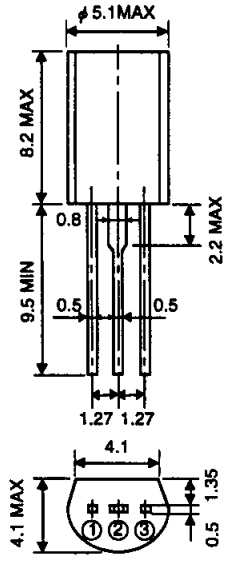
- High voltage V_{CEO}=-100V
- High peak collector current I_{CM}=-800mA
- High gain band width product f_T=130MHz(typ).
- High collector dissipation P_C=900mW

APPLICATION

For 20 to 40W amp complimentary drive, relay drive, power supply application.

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

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

Note)
The dimension without tolerance represent central value.

MAXIMUM RATINGS (Ta=25℃)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	-100	V
V_{EBO}	Emitter to Base voltage	-5	V
V_{CEO}	Collector to Emitter voltage	-100	V
I_{CM}	Peak Collector current	-800	mA
I_C	Collector current	-500	mA
P_C	Collector dissipation (Ta=25℃)	900	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	-55 to +150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	I_C = -10 μA, I_E=0	-100			V
$V_{(BR)EBO}$	E to B break down voltage	I_E = -10 μA, I_C=0	-5			V
$V_{(BR)CEO}$	C to E break down voltage	I_C = -1mA, R_{BE}=∞	-100			V
I_{CBO}	Collector cut off current	V_{CB} = -50 V, I_E=0			-0.5	μA
I_{EBO}	Emitter cut off current	V_{EB} = -2V, I_C=0			-0.5	μA
h_{FE} *	DC forward current gain	V_{CE} = -10V, I_C=-10mA	55		300	—
$V_{CE(sat)}$	C to E saturation voltage	I_C = -150mA, I_B= -15mA		-0.15	-0.5	V
f_T	Gain band width product	V_{CE}= -10V, I_E= 10mA		130		MHz
C_{ob}	Collector output capacitance	V_{CB}= -10V, I_E= 0, f=1MHz		11		pF

* : It shows h_{FE} classification in right table.

Item	C	D	E
h_{FE}	55 to 110	90 to 180	150 to 300

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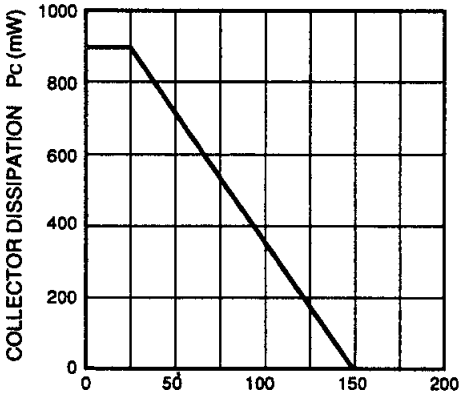
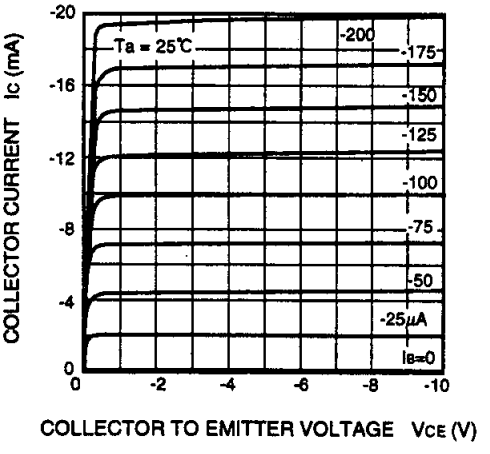
TYPICAL CHARACTERISTICS

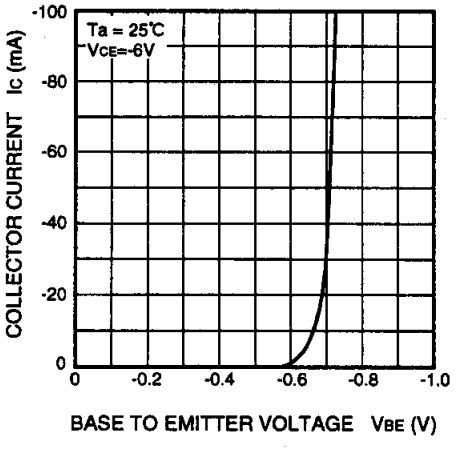
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



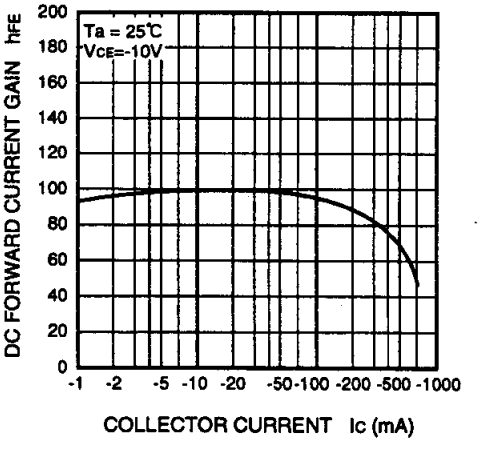
COMMON EMITTER OUTPUT



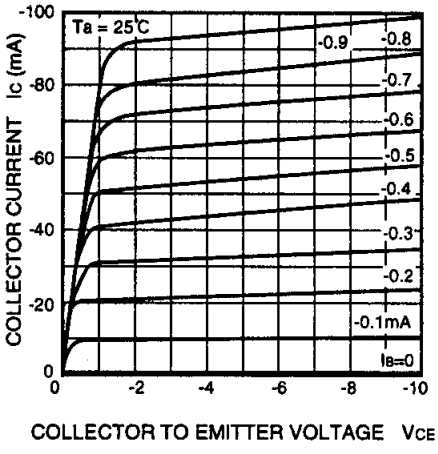
COMMON EMITTER TRANSFER



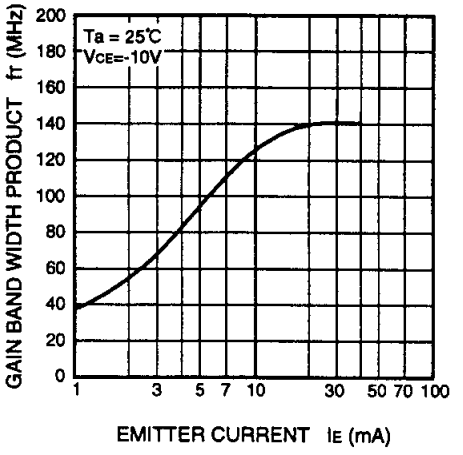
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COMMON EMITTER OUTPUT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



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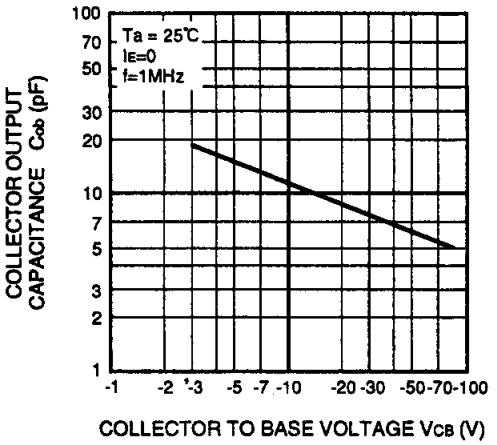
COLLECTOR OUTPUT CAPACITANCE VS.
COLLECTOR TO BASE VOLTAGE



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