

〈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

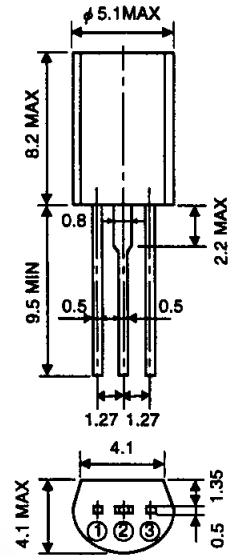
- High voltage $V_{CE0} = -100V$
- High peak collector current $I_{CM} = -800mA$
- High gain band width product $f_T = 130MHz$ (typ).
- High collector dissipation $P_C = 900mW$

APPLICATION

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

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

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

Note)

The dimension without tolerance represent central value.

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

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 ($T_a = 25^\circ C$)	900	mW
T_j	Junction temperature	+150	$^\circ C$
T_{stg}	Storage temperature	-55 to +150	$^\circ C$

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

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C = -10 \mu A, I_E = 0$	-100			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E = -10 \mu A, I_C = 0$	-5			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C = -1mA, R_{BE} = \infty$	-100			V
I_{CBO}	Collector cut off current	$V_{CB} = -50V, I_E = 0$			-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

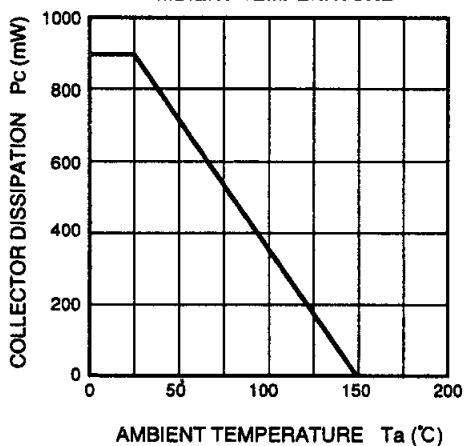
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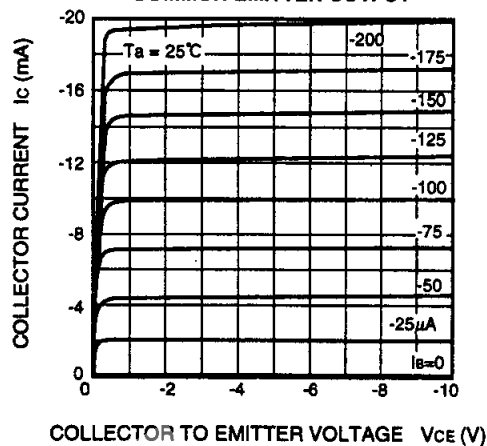
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TYPICAL CHARACTERISTICS

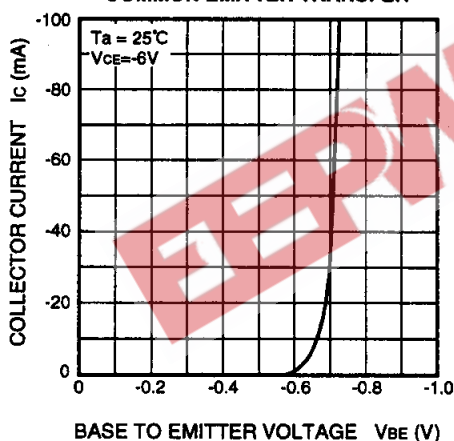
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



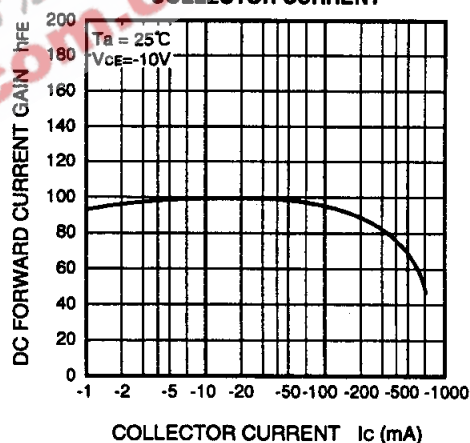
COMMON EMITTER OUTPUT



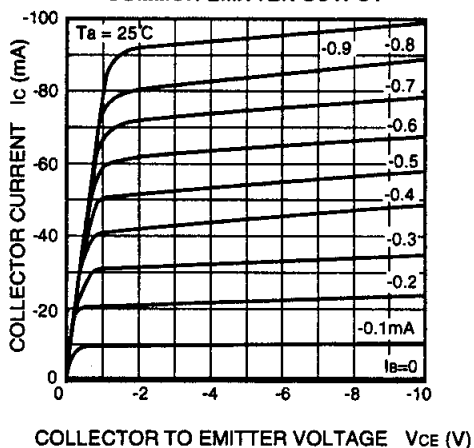
COMMON EMITTER TRANSFER



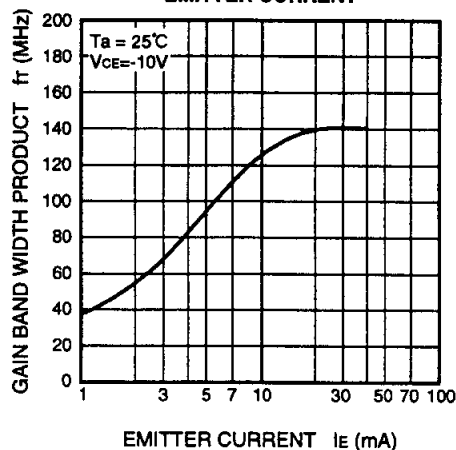
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COMMON EMITTER OUTPUT



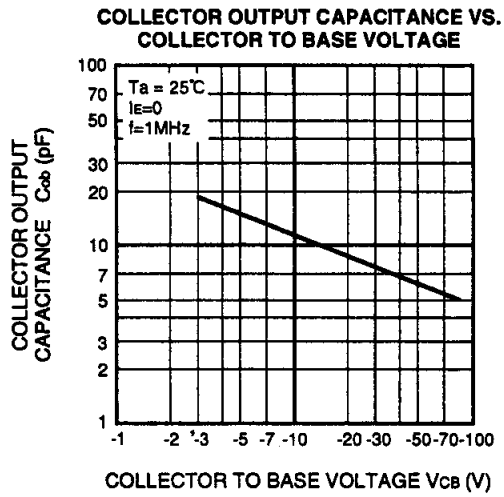
GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



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