

# 2SA1282, 2SA1282A

FOR LOW FREQUENCY POWER AMPLIFY APPLICATION  
SILICON PNP EPITAXIAL TYPE

## DESCRIPTION

2SA1282, 2SA1282A is a silicon PNP epitaxial type transistor designed for small type motor drive, solenoid drive and power supply application.

Complementary with 2SC3242, 2SC3242A.

## FEATURE

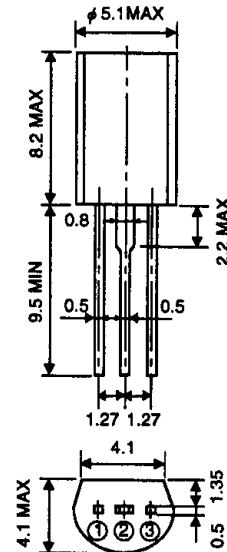
- High collector current  $I_C = -2A$
- Low collector saturation voltage  
 $V_{CE(sat)} = -0.17V$  typ (@  $I_C = -1A$ )
- High  $h_{FE} = 150$  to  $800$
- High collector dissipation  $P_C = 900mW$

## APPLICATION

VCR, deck, small type motor drive for player, power supply, etc.

## 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
		2SA1282	2SA1282A	
V <sub>CB0</sub>	Collector to Base voltage	-20	-20	V
V <sub>EB0</sub>	Emitter to Base voltage	-6	-6	V
V <sub>CE0</sub>	Collector to Emitter voltage	-16	-20	V
I <sub>CM</sub>	Peak collector current	-3		A
I <sub>C</sub>	Collector current	-2		A
P <sub>C</sub>	Collector dissipation	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)

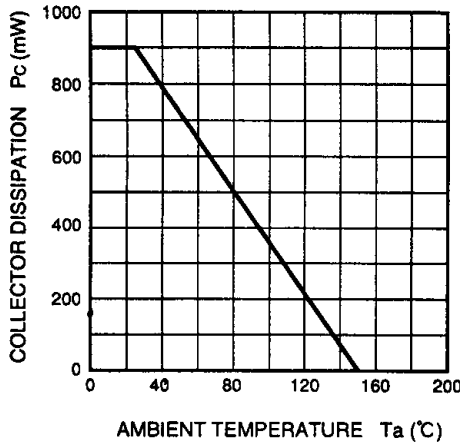
Symbol	Parameter	Test conditions	Limits						Unit
			2SA1282			2SA1282A			
			Min	Typ	Max	Min	Typ	Max	
V <sub>(BR)CBO</sub>	C to B break down voltage	I <sub>C</sub> = -10 μA, I <sub>E</sub> =0	-20			-20			V
V <sub>(BR)EBO</sub>	E to B break down voltage	I <sub>E</sub> = -10 μA, I <sub>C</sub> =0	-6			-6			V
V <sub>(BR)CEO</sub>	C to E break down voltage	I <sub>C</sub> = -2 mA, R <sub>BE</sub> =∞	-16			-20			V
I <sub>CBO</sub>	Collector cut off current	V <sub>CB</sub> = -16 V, I <sub>E</sub> =0			-0.2			-0.2	μA
I <sub>EBO</sub>	Emitter cut off current	V <sub>EB</sub> = -4V, I <sub>C</sub> =0			-0.2			-0.2	μA
h <sub>FE</sub> *	DC forward current gain	V <sub>CE</sub> = -4 V, I <sub>C</sub> =-100mA	150		800	150		500	—
V <sub>CE(sat)</sub>	C to E saturation Voltage	I <sub>C</sub> = -1A, I <sub>B</sub> = -50mA		-0.17	-0.3		-0.17	-0.3	V
f <sub>T</sub>	Gain band width product	V <sub>CE</sub> = -2V, I <sub>E</sub> =10mA		80			80		MHz
C <sub>ob</sub>	Collector out put capacitance	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f=1MHz,		42			42		pF

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

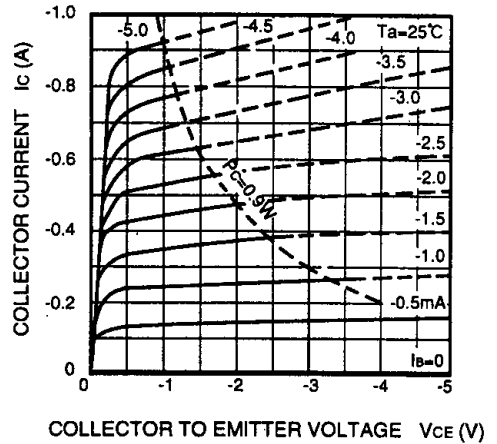
Item	E	F	G
h <sub>FE</sub>	150 to 300	250 to 500	400 to 800

**TYPICAL CHARACTERISTICS**

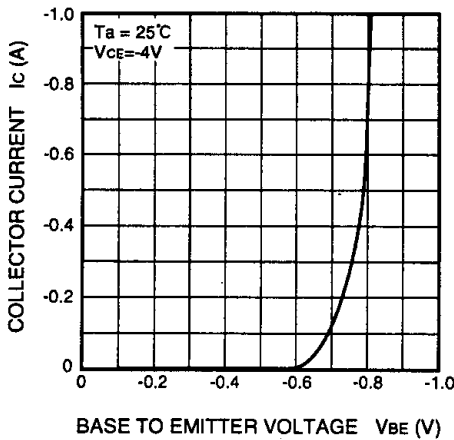
**COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE**



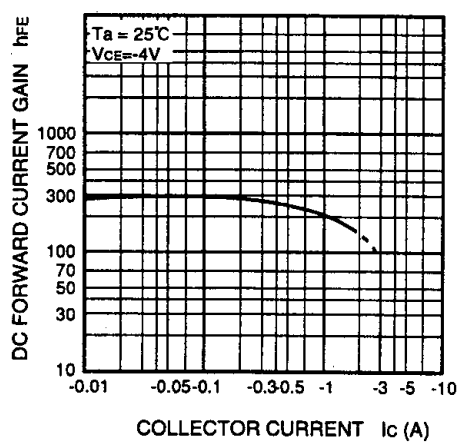
**COMMON EMITTER OUTPUT VS. COLLECTOR TO EMITTER VOLTAGE**



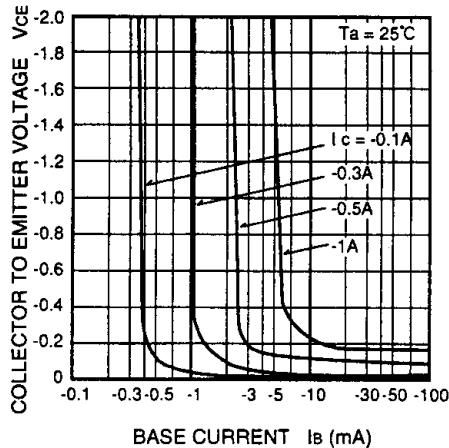
**COMMON EMITTER TRANSFER**



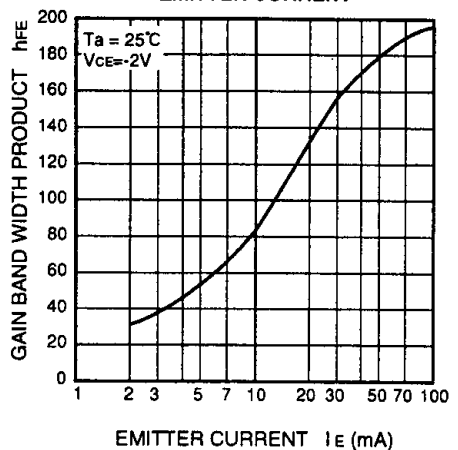
**DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT**



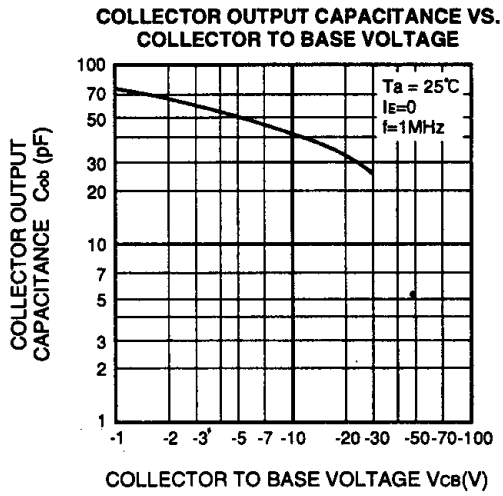
**COLLECTOR TO EMITTER SATURATION VOLTAGE VS. BASE CURRENT**



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



FOR LOW FREQUENCY POWER AMPLIFY APPLICATION  
SILICON PNP EPITAXIAL TYPE



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