

<SMALL-SIGNAL TRANSISTOR>

**2SA1287**

FOR RELAY DRIVE, POWER SUPPLY APPLICATION  
SILICON PNP EPITAXIAL TYPE

**DESCRIPTION**

2SA1287 is silicon PNP epitaxial type transistor. Designed with high Voltage, high collector current, dissipation and high hFE.

Complementary with 2SC3247.

**FEATURE**

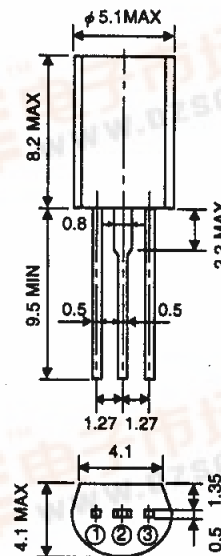
- High hFE hFE=400 to 800
- High voltage VCE0=-50V
- Low collector to emitter saturation voltage.  
VCE(sat)=-0.2V (@IC=-500mA, IB=-10mA)
- High collector dissipation Pc=900mW

**APPLICATION**

Relay drive or power supply of audio machine, VCR, and other electronic machine.

**OUTLINE DRAWING**

Unit:mm



**TERMINAL CONNECTOR**

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

Note) The dimension without tolerance represent central value.

**MAXIMUM RATINGS (Ta=25°C)**

Symbol	Parameter	Rated	Unit
V <sub>CB0</sub>	Collector to Base voltage	-50	V
V <sub>EB0</sub>	Emitter to Base voltage	-6	V
V <sub>CE0</sub>	Collector to Emitter voltage	-50	V
I <sub>CM</sub>	Peak collector current	-2	A
I <sub>C</sub>	Collector current	-1	A
P <sub>C</sub>	Collector dissipation(Ta=25°C)	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
			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	-50			V
V <sub>(BR)EBO</sub>	E to B break down voltage	I <sub>E</sub> =-10 μA, I <sub>C</sub> =0	-6			V
V <sub>(BR)CEO</sub>	C to E break down voltage	I <sub>C</sub> =-1mA, R <sub>BE</sub> =∞	-50			V
I <sub>CB0</sub>	Collector cut off current	V <sub>CB</sub> =-40V, I <sub>E</sub> =0			-0.1	μA
I <sub>EB0</sub>	Emitter cut off current	V <sub>EB</sub> =-2V, I <sub>C</sub> =0			-0.1	μA
h <sub>FE</sub> *	DC forward current gain	V <sub>CE</sub> =-6V, I <sub>C</sub> =-100mA	400		800	—
V <sub>CE(sat)</sub>	C to E saturation voltage	I <sub>C</sub> =-500mA, I <sub>B</sub> =-10mA		-0.2	-0.5	V
f <sub>T</sub>	Gain band width product	V <sub>CE</sub> =-10V, I <sub>E</sub> =10mA		90		MHz
C <sub>ob</sub>	Collector output capacitance	V <sub>CB</sub> =-10V, I <sub>E</sub> =0, f=1MHz		30		pF

\* : It shows hFE classification in right table.

Item	G
hFE	400 to 800



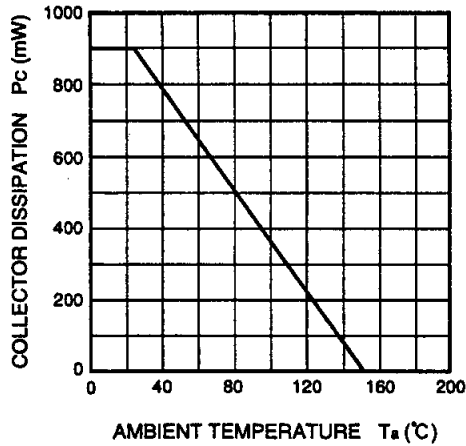
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# 2SA1287

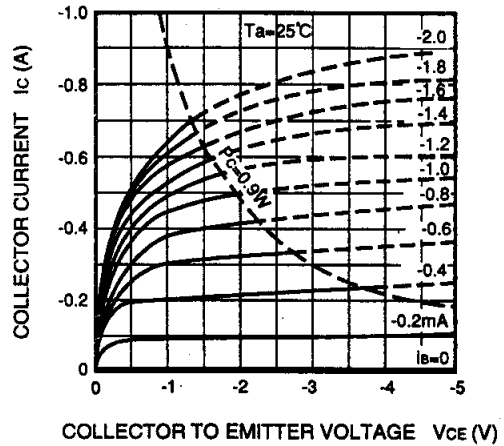
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## TYPICAL CHARACTERISTICS

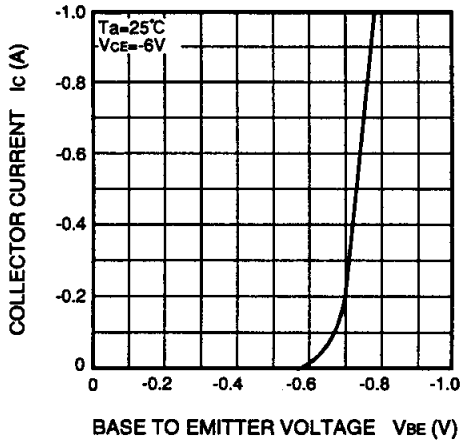
COLLECTOR DISSIPATION VS.  
AMBIENT TEMPERATURE



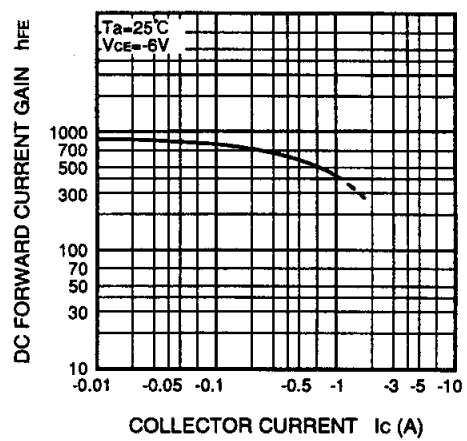
COMMON EMITTER OUTPUT



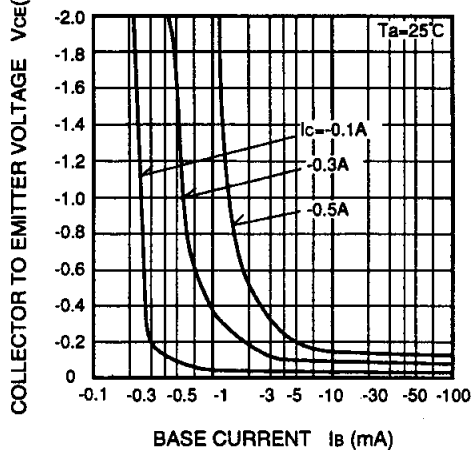
COMMON EMITTER TRANSFER



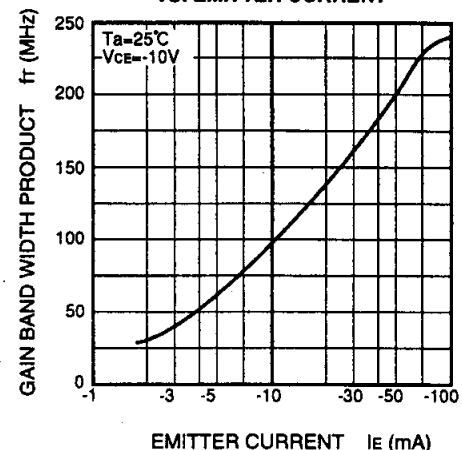
DC FORWARD CURRENT GAIN  
VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION  
VOLTAGE VS. BASE CURRENT



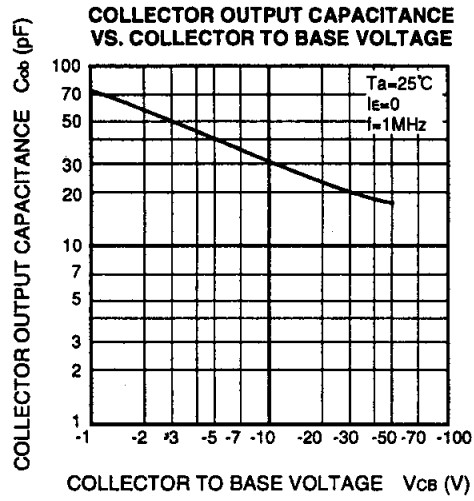
GAIN BAND WIDTH PRODUCT  
VS. EMITTER CURRENT



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 **ISAHAYA ELECTRONICS CORPORATION**

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