

**DESCRIPTION**

2SC3247 is a silicon NPN epitaxial type transistor. Designed with high voltage, high collector current, dissipation and high hFE. Complementary with 2SA1287.

**FEATURE**

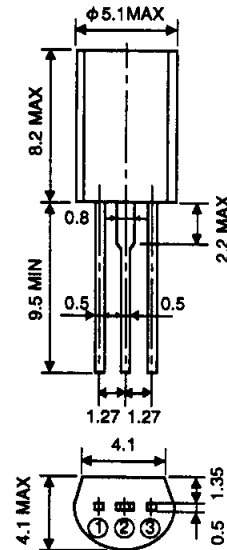
- High hFE hFE=600 to 1800
- High voltage VCE0=50V
- Low collector to emitter saturation voltage  
VCE(sat)=0.15V (@ IC=500mA, IB=10mA)
- High collector dissipation PC=900mW

**APPLICATION**

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

**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	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	600		1800	—
V <sub>CE(sat)</sub>	C to E saturation voltage	I <sub>C</sub> =500mA, I <sub>B</sub> =10mA		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		12		pF

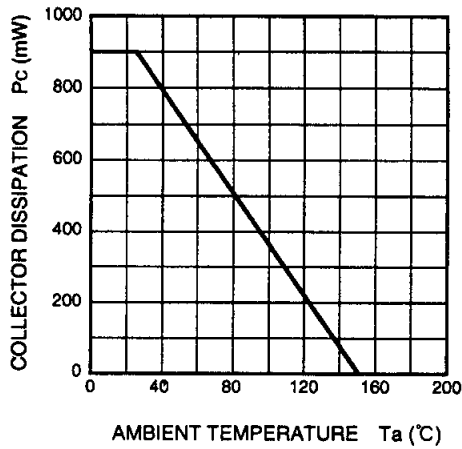
\* It shows hFE classification in right table.

Item	H	J
hFE	600 to 1200	900 to 1800

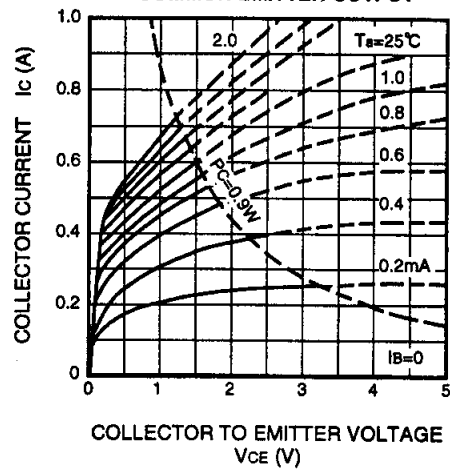
FOR RELAY DRIVE, POWER SUPPLY APPLICATION  
SILICON NPN EPITAXIAL TYPE

TYPICAL CHARACTERISTICS

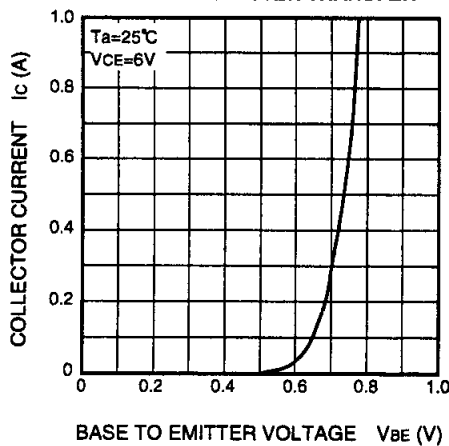
COLLECTOR DISSIPATION VS.  
AMBIENT TEMPERATURE



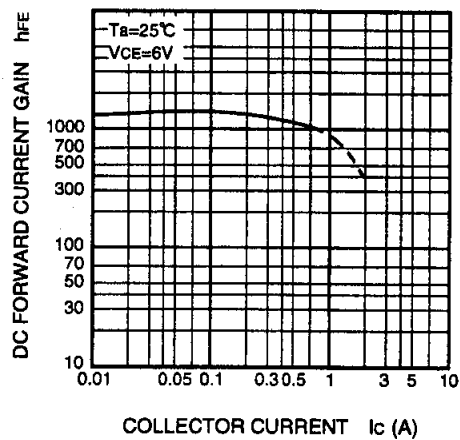
COMMON EMITTER OUTPUT



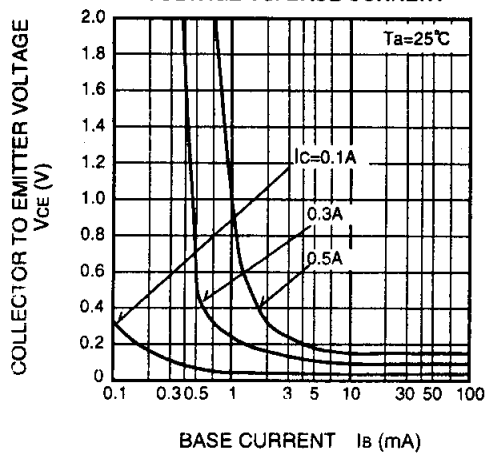
COMMON EMITTER TRANSFER



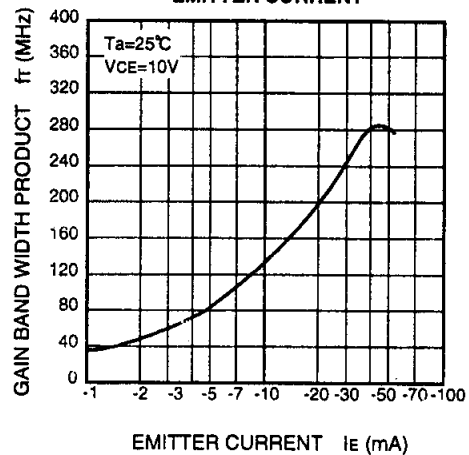
DC FORWARD CURRENT GAIN  
VS. COLLECTOR CURRENT



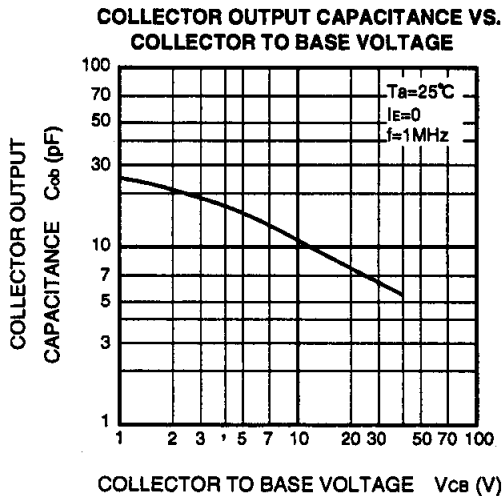
COLLECTOR TO EMITTER SATURATION  
VOLTAGE VS. BASE CURRENT



GAIN BAND WIDTH PRODUCT VS.  
EMITTER CURRENT



FOR RELAY DRIVE, POWER SUPPLY APPLICATION  
SILICON NPN EPITAXIAL TYPE



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