

**FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE**

DESCRIPTION

2SD1447 is a silicon NPN epitaxial type transistor designed for 2 to 3.5W output low frequency power amplify application.

Complementary with 2SB1035.

FEATURE

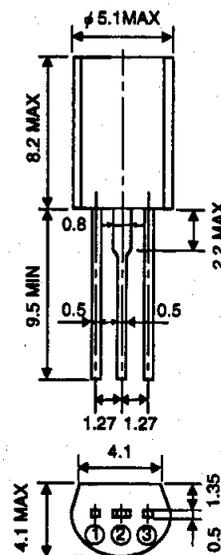
- High collector current $I_{CM} = 1.5A$
- High gain band width product $f_T = 100MHz$ typ
- High collector dissipation $P_C = 900mW$
- Excellent linearity of DC forward current gain

APPLICATION

2 to 3.5W output low frequency amplify circuit of radio, cassette tape recorder, mini stereo.

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	Ratings	Unit
V _{CB0}	Collector to Base voltage	30	V
V _{EB0}	Emitter to Base voltage	4	V
V _{CE0}	Collector to Emitter voltage	25	V
I _{CM}	Peak Collector current	1.5	A
I _C	Collector current	1	A
P _C	Collector dissipation (Ta=25°C)	900	mW
T _J	Junction temperature	+150	°C
T _{stg}	Storage temperature	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

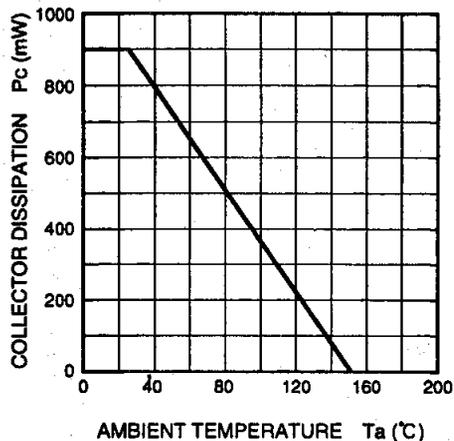
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V _{(BR)CBO}	C to B break down voltage	I _C = 10 μA, I _E = 0	30			V
V _{(BR)EBO}	E to B break down voltage	I _E = 10 μA, I _C = 0	4			V
V _{(BR)CEO}	C to E break down voltage	I _C = 100 μA, R _{BE} = ∞	25			V
I _{CB0}	Collector cut off current	V _{CB} = 25V, I _E = 0			1	μA
I _{EB0}	Emitter cut off current	V _{EB} = 2V, I _C = 0			1	μA
h _{FE} *	DC forward current gain	V _{CE} = 1V, I _C = 500mA	55		300	-
V _{CE(sat)}	C to E saturation voltage	I _C = 500mA, I _B = 25mA			0.5	V
f _T	Gain band width product	V _{CE} = 6V, I _E = -10mA		100		MHz

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

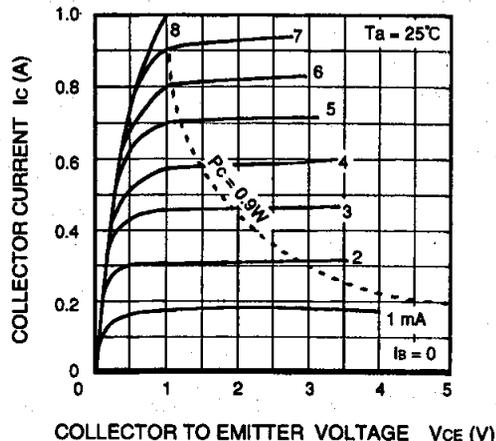
Item	C	D	E
h _{FE}	55 to 110	90 to 180	150 to 300

TYPICAL CHARACTERISTICS

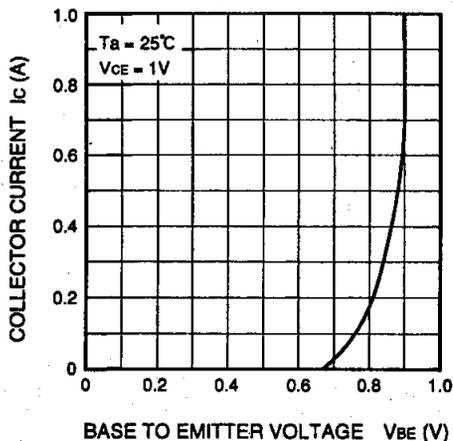
**COLLECTOR DISSIPATION VS.
AMBIENT TEMPERATURE**



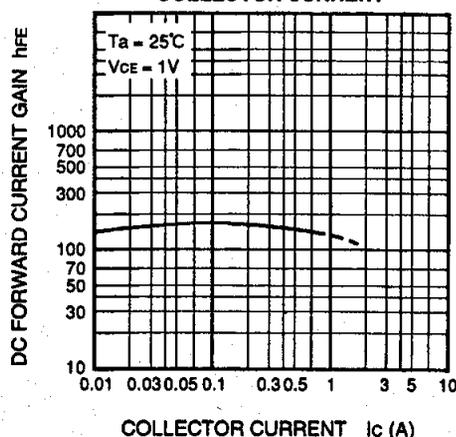
COMMON EMITTER OUTPUT



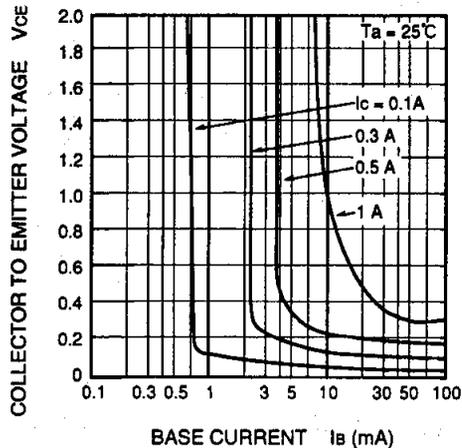
COMMON EMITTER TRANSFER



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



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



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