

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

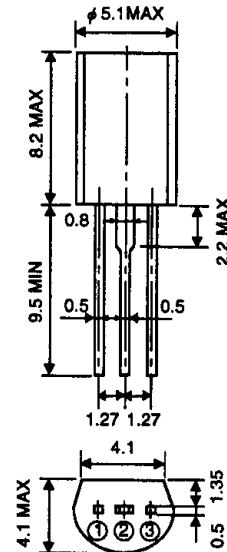
- High collector current $I_C = -2A$
- Low collector saturation voltage
 $V_{CE(sat)} = -0.17V$ typ (@ $I_C = -1A$)
- High $h_{FE} = 150$ to 800
- High collector dissipation $P_C = 900mW$

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 _{CB0} | Collector to Base voltage | -20 | -20 | V |
| V _{EB0} | Emitter to Base voltage | -6 | -6 | V |
| V _{CE0} | Collector to Emitter voltage | -16 | -20 | V |
| I _{CM} | Peak collector current | -3 | | A |
| I _C | Collector current | -2 | | A |
| P _C | Collector dissipation | 900 | | mW |
| T _J | Junction temperature | +150 | | °C |
| T _{stg} | Storage temperature | -55 to +150 | | °C |

ELECTRICAL CHARACTERISTICS (Ta=25°C)

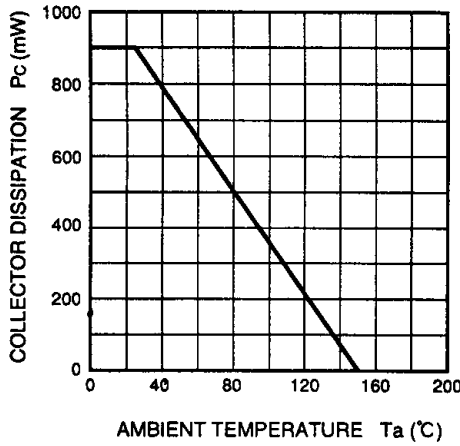
| Symbol | Parameter | Test conditions | Limits | | | | | | Unit |
|----------------------|-------------------------------|---|---------|-------|------|----------|-------|------|------|
| | | | 2SA1282 | | | 2SA1282A | | | |
| | | | Min | Typ | Max | Min | Typ | Max | |
| V _{(BR)CBO} | C to B break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

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

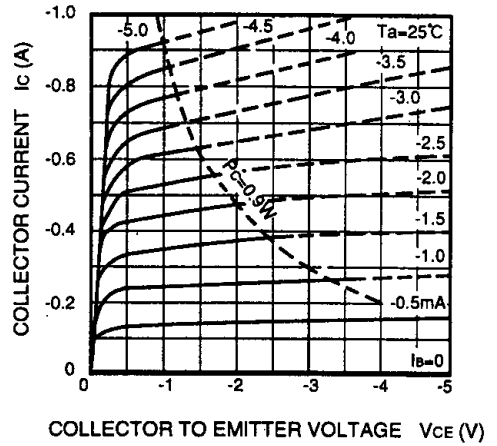
| Item | E | F | G |
|-----------------|------------|------------|------------|
| h _{FE} | 150 to 300 | 250 to 500 | 400 to 800 |

TYPICAL CHARACTERISTICS

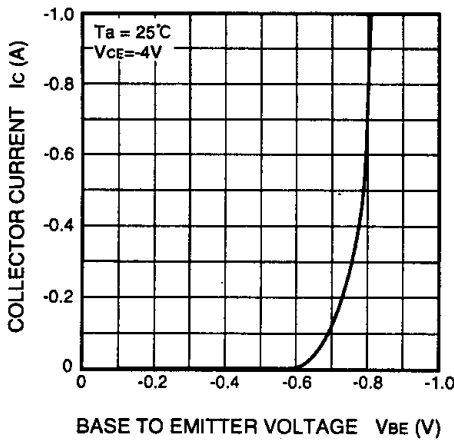
COLLECTOR DISSIPATION VS.
AMBIENT TEMPERATURE



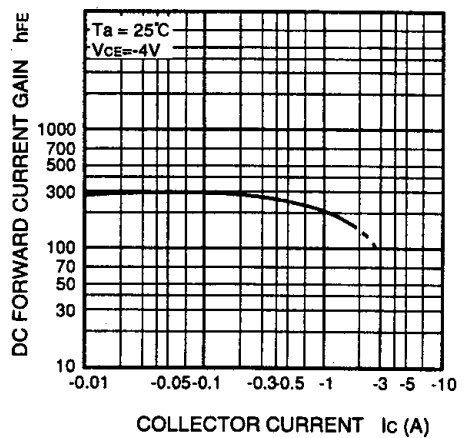
COMMON EMITTER OUTPUT VS.
COLLECTOR TO EMITTER VOLTAGE



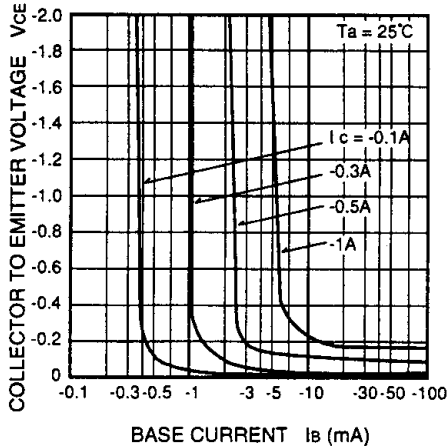
COMMON EMITTER TRANSFER



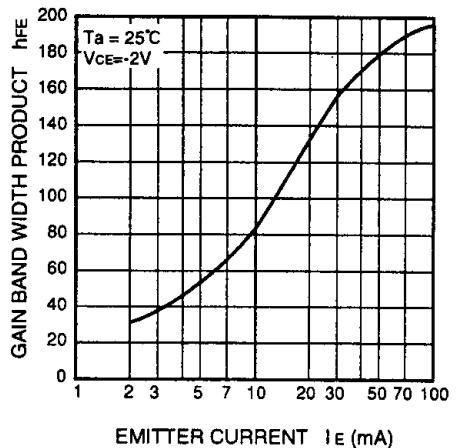
DC FORWARD CURRENT GAIN VS.
COLLECTOR CURRENT

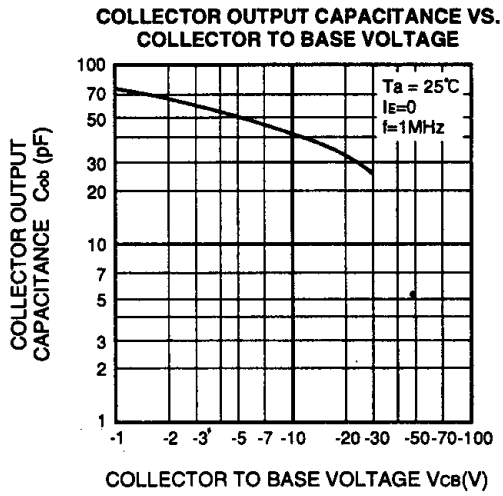


COLLECTOR TO EMITTER
SATURATION VOLTAGE VS.
BASE CURRENT



GAIN BAND WIDTH PRODUCT VS.
EMITTER CURRENT





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