

**FOR GENERAL PURPOSE HIGH CURRENT DRIVE APPLICATION  
SILICON PNP EPITAXIAL TYPE**

**DESCRIPTION**

2SA1366 is a super mini silicon PNP epitaxial type transistor designed with high collector current, high voltage.

Complementary with 2SC3441.

**FEATURE**

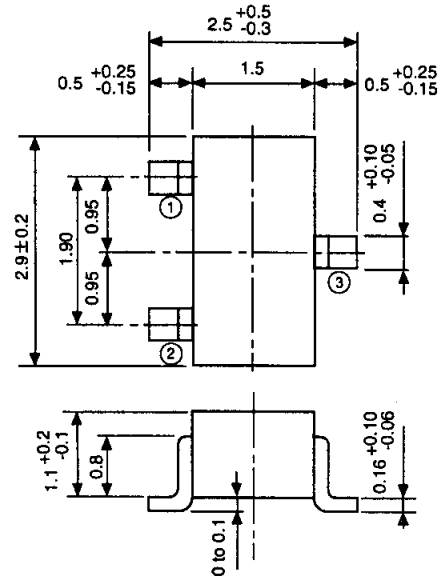
- High  $V_{CE}$   $V_{CE0}=50V$
- Excellent linearity of DC forward current gain
- Super mini package for easy mounting
- High collector current  $I_{CM}=-600mA$
- High gain band width product  $f_T=150MHz$  typ

**APPLICATION**

For switching small type motor drive application.

**OUTLINE DRAWING**

Unit:mm



**TERMINAL CONNECTOR**

① : BASE

② : EMITTER

③ : COLLECTOR

EIAJ : SC-59

JEDEC : TO-236 resemblance

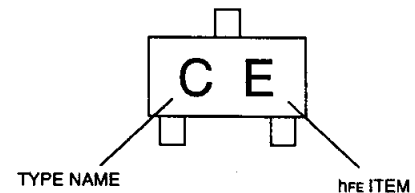
Note)

The dimension without tolerance represent central value.

**MAXIMUM RATINGS** ( $T_a=25^{\circ}C$ )

| Symbol    | Parameter                                  | Ratings     | Unit        |
|-----------|--------------------------------------------|-------------|-------------|
| $V_{CBO}$ | Collector to Base voltage                  | -55         | V           |
| $V_{EBO}$ | Emitter to Base voltage                    | -4          | V           |
| $V_{CEO}$ | Collector to Emitter voltage               | -50         | V           |
| $I_{CM}$  | Peak Collector current                     | -600        | mA          |
| $I_C$     | Collector current                          | -400        | mA          |
| $P_C$     | Collector dissipation( $T_a=25^{\circ}C$ ) | 150         | mW          |
| $T_j$     | Junction temperature                       | +125        | $^{\circ}C$ |
| $T_{stg}$ | Storage temperature                        | -55 to +125 | $^{\circ}C$ |

**MARKING**



**ELECTRICAL CHARACTERISTICS** ( $T_a=25^{\circ}C$ )

| Symbol        | Parameter                 | Test conditions                 | Limits |       |      | Unit    |
|---------------|---------------------------|---------------------------------|--------|-------|------|---------|
|               |                           |                                 | Min    | Typ   | Max  |         |
| $V_{(BR)CBO}$ | C to B break down voltage | $I_C=-10 \mu A, I_E=0$          | -55    |       |      | V       |
| $V_{(BR)EBO}$ | E to B break down voltage | $I_E=-10 \mu A, I_C=0$          | -4     |       |      | V       |
| $V_{(BR)CEO}$ | C to E break down voltage | $I_C=-100 \mu A, R_{BE}=\infty$ | -50    |       |      | V       |
| $I_{CBO}$     | Collector cut off current | $V_{CB}=-25V, I_E=0$            |        |       | -1   | $\mu A$ |
| $I_{EBO}$     | Emitter cut off current   | $V_{EB}=-2V, I_C=0$             |        |       | -1   | $\mu A$ |
| $h_{FE} *$    | DC forward current gain   | $V_{CE}=-4V, I_C=-100mA$        | 90     |       | 500  | —       |
| $V_{CE(sat)}$ | C to E saturation voltage | $I_C=-200mA, I_E=-10mA$         |        | -0.17 | -0.5 | V       |
| $f_T$         | Gain band width product   | $V_{CE}=-6V, I_E=10mA$          |        | 150   |      | MHz     |

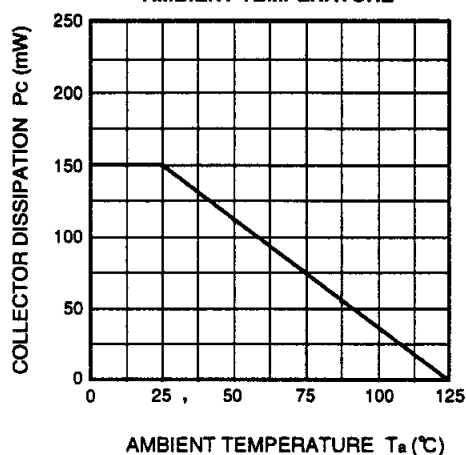
\* : It shows  $h_{FE}$  classification in right table.

| Marking  | CD        | CE         | CF         |
|----------|-----------|------------|------------|
| $h_{FE}$ | 90 to 180 | 150 to 300 | 250 to 500 |

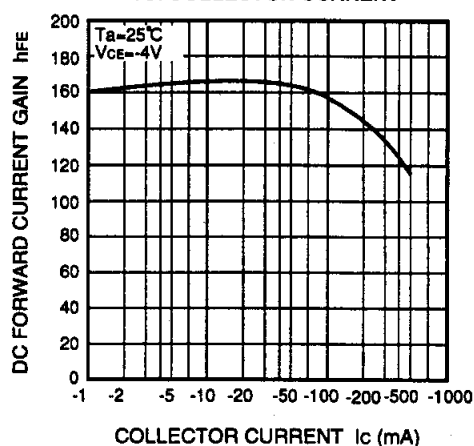
FOR GENERAL PURPOSE HIGH CURRENT DRIVE APPLICATION  
SILICON PNP EPITAXIAL TYPE

TYPICAL CHARACTERISTICS

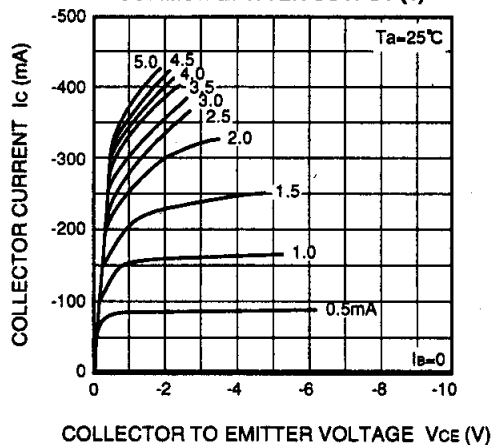
COLLECTOR DISSIPATION VS.  
AMBIENT TEMPERATURE



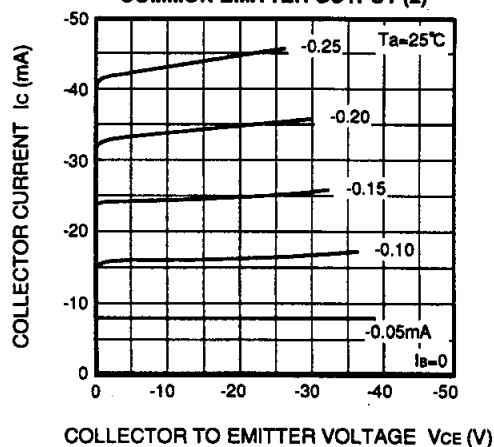
DC FORWARD CURRENT GAIN  
VS. COLLECTOR CURRENT



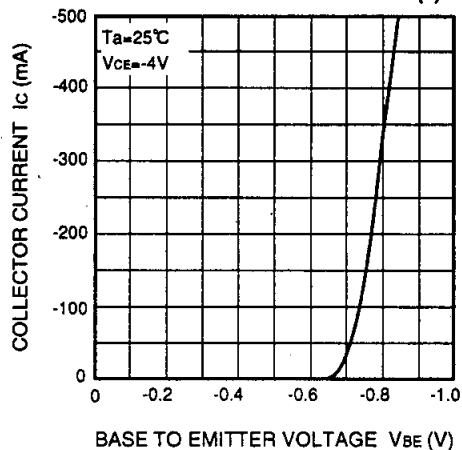
COMMON EMITTER OUTPUT (1)



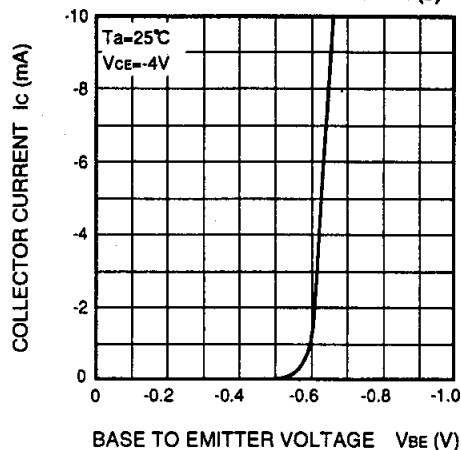
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER (1)



COMMON EMITTER TRANSFER (2)





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