

2SA1034, 2SA1035

Silicon PNP epitaxial planer type

For low-frequency and low-noise amplification

Complementary to 2SC2405 and 2SC2406

Features

- Low noise voltage NV.
- High forward current transfer ratio h_{FE} .
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

Absolute Maximum Ratings (Ta=25°C)

| Parameter | Symbol | Ratings | Unit |
|------------------------------|------------------|------------|------|
| Collector to base voltage | V _{CBO} | -35 | V |
| 2SA1034 | | | |
| 2SA1035 | | -55 | |
| Collector to emitter voltage | V _{CEO} | -35 | V |
| 2SA1034 | | | |
| 2SA1035 | | -55 | |
| Emitter to base voltage | V _{EBO} | -5 | V |
| Peak collector current | I _{CP} | -100 | mA |
| Collector current | I _C | -50 | mA |
| Collector power dissipation | P _C | 200 | mW |
| Junction temperature | T _J | 150 | °C |
| Storage temperature | T _{stg} | -55 ~ +150 | °C |

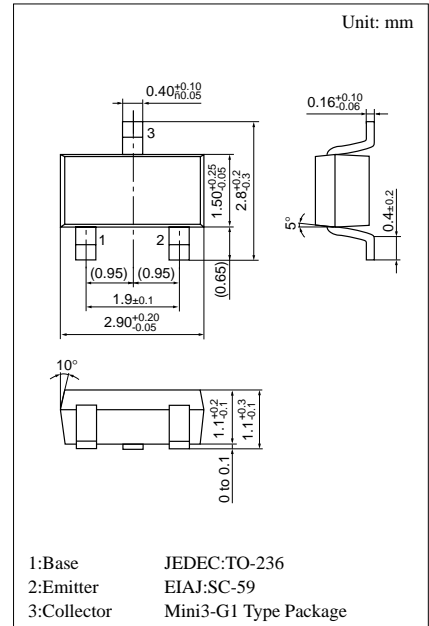
Electrical Characteristics (Ta=25°C)

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|---|-------------------------------|---|-----|------|------|------|
| Collector cutoff current | I _{CBO} | V _{CB} = -10V, I _E = 0 | | | -100 | nA |
| | I _{CEO} | V _{CE} = -10V, I _B = 0 | | | -1 | μA |
| Collector to base voltage | V _{CBO} | I _C = -10μA, I _E = 0 | -35 | | | V |
| | | | -55 | | | |
| Collector to emitter voltage | V _{CEO} | I _C = -2mA, I _B = 0 | -35 | | | V |
| | | | -55 | | | |
| Emitter to base voltage | V _{EBO} | I _E = -10μA, I _C = 0 | -5 | | | V |
| Forward current transfer ratio | h _{FE} ^{*1} | V _{CE} = -5V, I _C = -2mA | 180 | | 700 | |
| Collector to emitter saturation voltage | V _{CE(sat)} | I _C = -100mA, I _B = -10mA ^{*2} | | -0.7 | -0.6 | V |
| Base to emitter voltage | V _{BE} | V _{CE} = -1V, I _C = -100mA ^{*2} | | 200 | -1.0 | V |
| Transition frequency | f _T | V _{CB} = -5V, I _E = 2mA, f = 200MHz | | | | MHz |
| Noise voltage | NV | V _{CE} = -10V, I _C = -1mA, G _v = 80dB R _g = 100kΩ, Function = FLAT | | | 150 | mV |

^{*1}h_{FEI} Rank classification

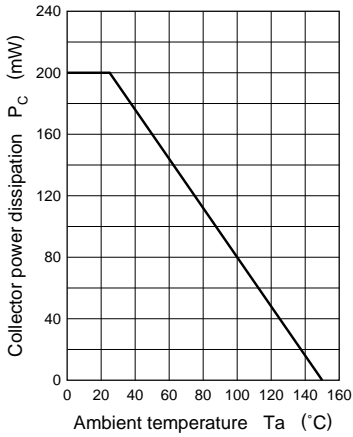
| Rank | R | S | T |
|-----------------|---------------|-----------|-----------|
| h _{FE} | 180 ~ 360 | 260 ~ 520 | 360 ~ 700 |
| Marking Symbol | 2SA1034 FR | FS | FT |
| | 2SA1035 HR | HS | HT |

^{*2} Pulse measurement

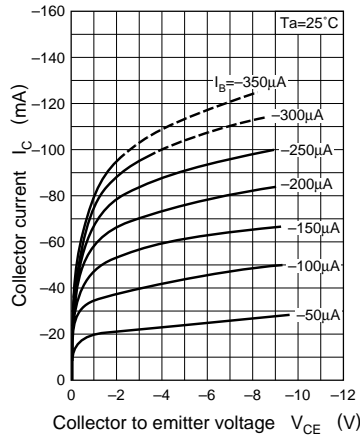


Marking symbol : F(2SA1034)
H(2SA1035)

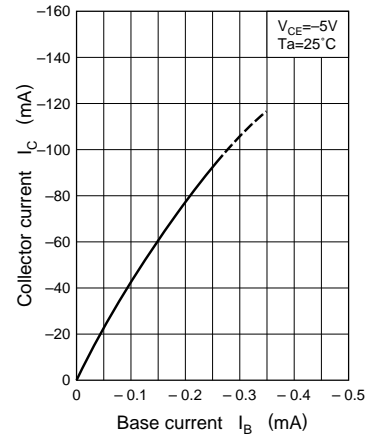
$P_C - T_a$



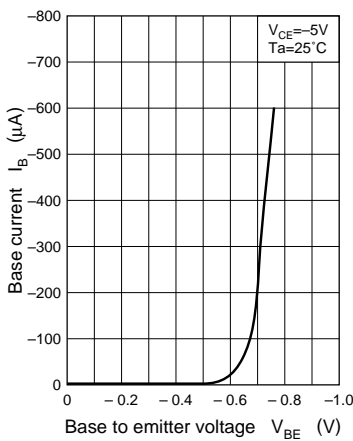
$I_C - V_{CE}$



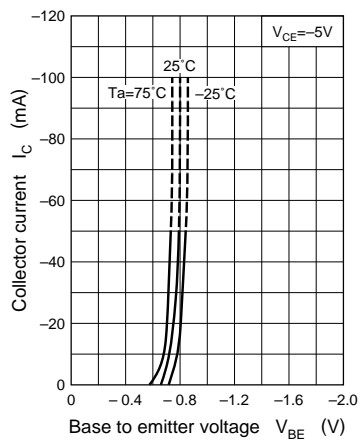
$I_C - I_B$



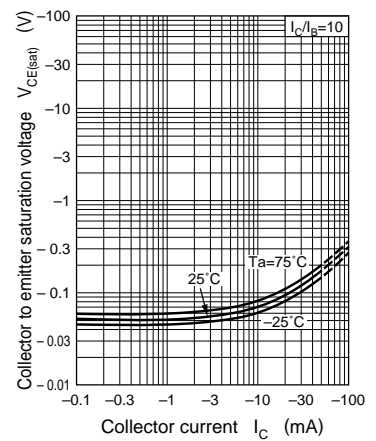
$I_B - V_{BE}$



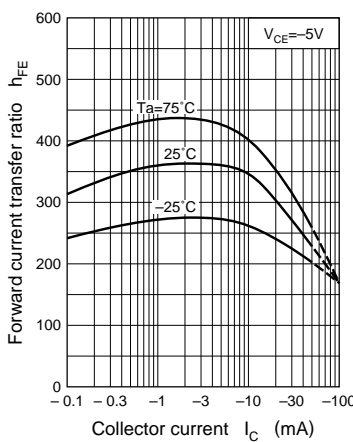
$I_C - V_{BE}$



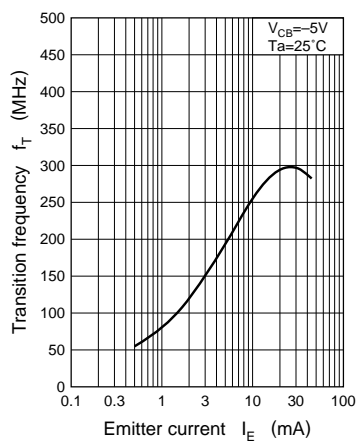
$V_{CE(sat)} - I_C$



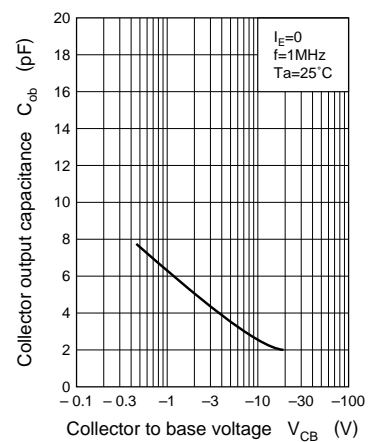
$h_{FE} - I_C$



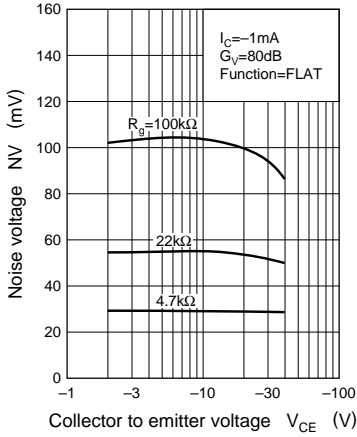
$f_T - I_E$



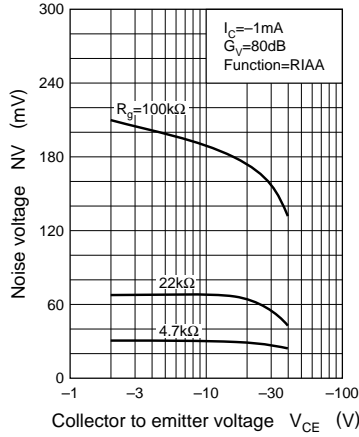
$C_{ob} - V_{CB}$



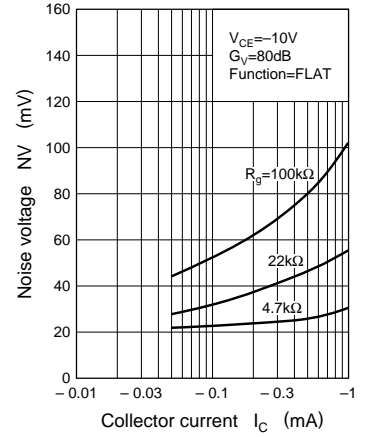
NV — V_{CE}



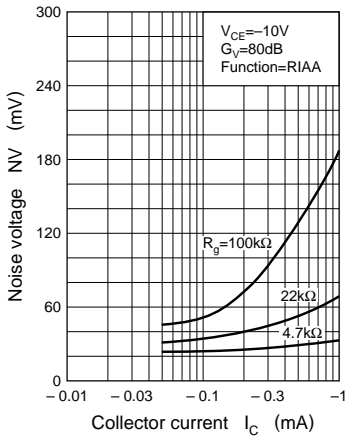
NV — V_{CE}



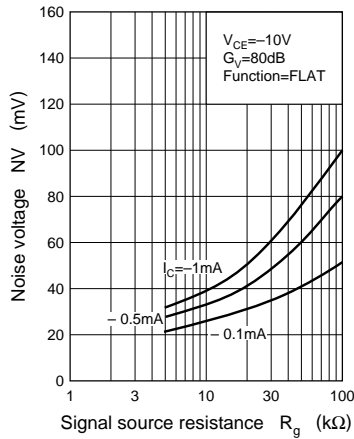
NV — I_C



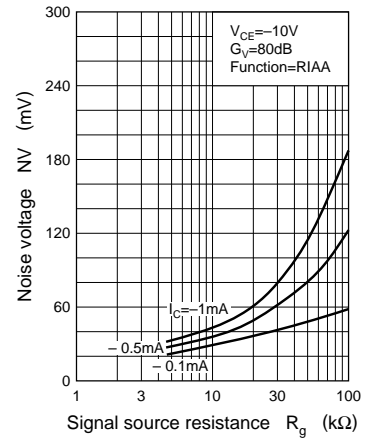
NV — I_C



NV — R_g



NV — R_g



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