

XN04556 (XN4556)

NPN epitaxial planer transistor

For amplification of the low frequency

■ Features

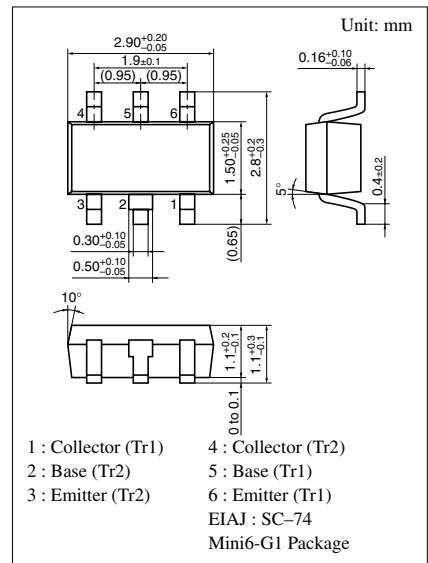
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

■ Basic Part Number of Element

- 2SD1149 × 2 elements

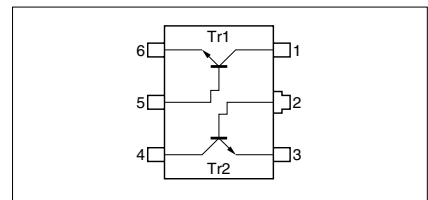
■ Absolute Maximum Ratings (Ta=25°C)

| | Parameter | Symbol | Ratings | Unit |
|-------------------|------------------------------|-----------|-------------|------|
| Rating of element | Collector to base voltage | V_{CBO} | 100 | V |
| | Collector to emitter voltage | V_{CEO} | 100 | V |
| | Emitter to base voltage | V_{EBO} | 15 | V |
| | Collector current | I_C | 20 | mA |
| | Peak collector current | I_{CP} | 50 | mA |
| Overall | Total power dissipation | P_T | 300 | mW |
| | Junction temperature | T_j | 150 | °C |
| | Storage temperature | T_{stg} | -55 to +150 | °C |



Marking Symbol: EP

Internal Connection

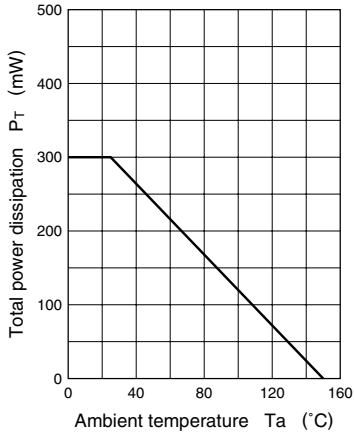


■ Electrical Characteristics (Ta=25°C)

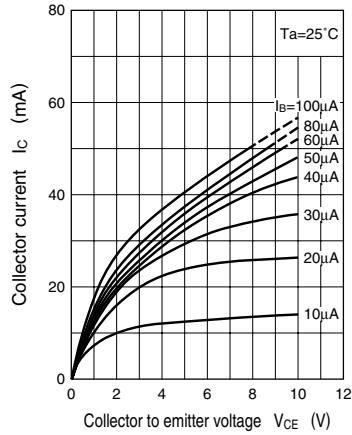
| Parameter | Symbol | Conditions | min | typ | max | Unit |
|---|---------------|--|-----|------|------|---------|
| Collector to base voltage | V_{CBO} | $I_C = 10\mu A, I_E = 0$ | 100 | | | V |
| Collector to emitter voltage | V_{CEO} | $I_C = 1mA, I_B = 0$ | 100 | | | V |
| Emitter to base voltage | V_{EBO} | $I_E = 10\mu A, I_C = 0$ | 15 | | | V |
| Collector cutoff current | I_{CBO} | $V_{CB} = 60V, I_E = 0$ | | | 0.1 | μA |
| | I_{CEO} | $V_{CE} = 60V, I_B = 0$ | | | 1.0 | μA |
| Forward current transfer ratio | h_{FE} | $V_{CE} = 10V, I_C = 2mA$ | 400 | | 2000 | |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 10mA, I_B = 1mA$ | | 0.05 | 0.2 | V |
| Noise voltage | NV | $V_{CE} = 10V, I_C = 1mA, G_v = 80dB$ $R_g = 100K\Omega, \text{Function} = \text{FLAT}$ | | 80 | | mV |
| Transition frequency | f_T | $V_{CB} = 10V, I_E = -2mA, f = 200MHz$ | | 150 | | MHz |

Note) The Part number in the Parenthesis shows conventional part number.

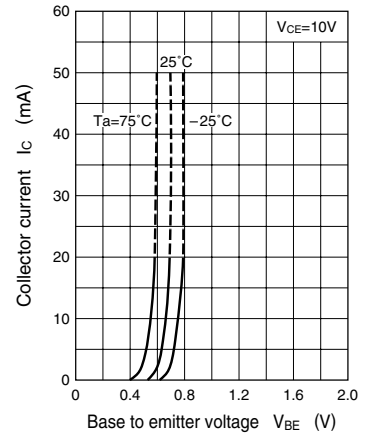
$P_T - T_a$



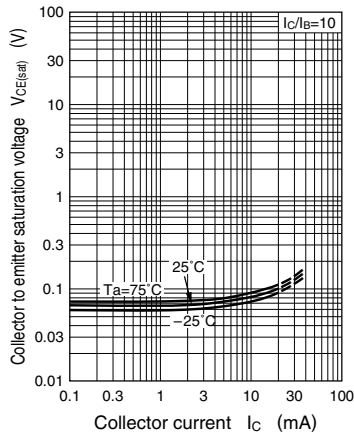
$I_C - V_{CE}$



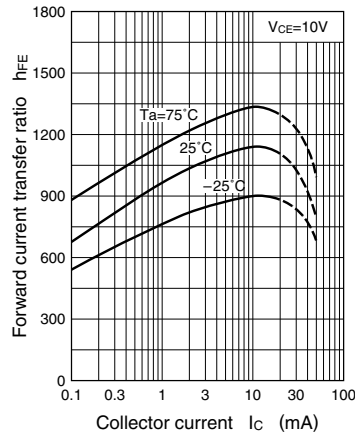
$I_C - V_{BE}$



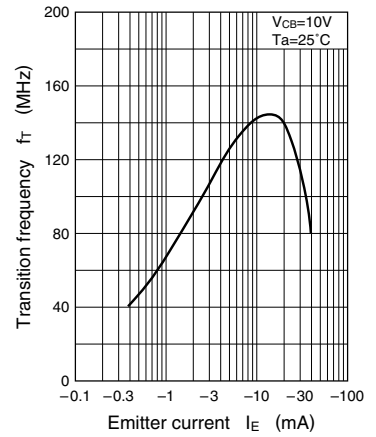
$V_{CE(sat)} - I_C$



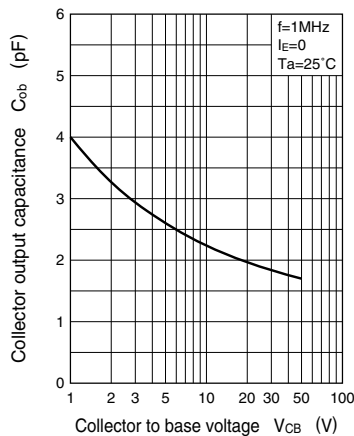
$h_{FE} - I_C$



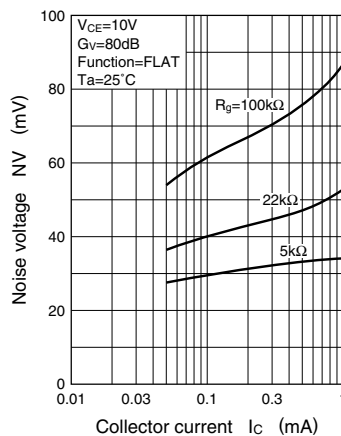
$f_T - I_E$



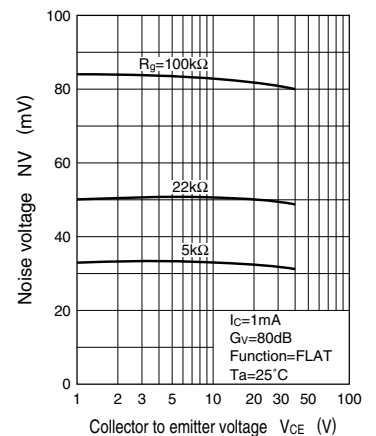
$C_{ob} - V_{CB}$



$NV - I_C$



$NV - V_{CE}$



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