

isc Silicon NPN RF Transistor

2SC4265

DESCRIPTION

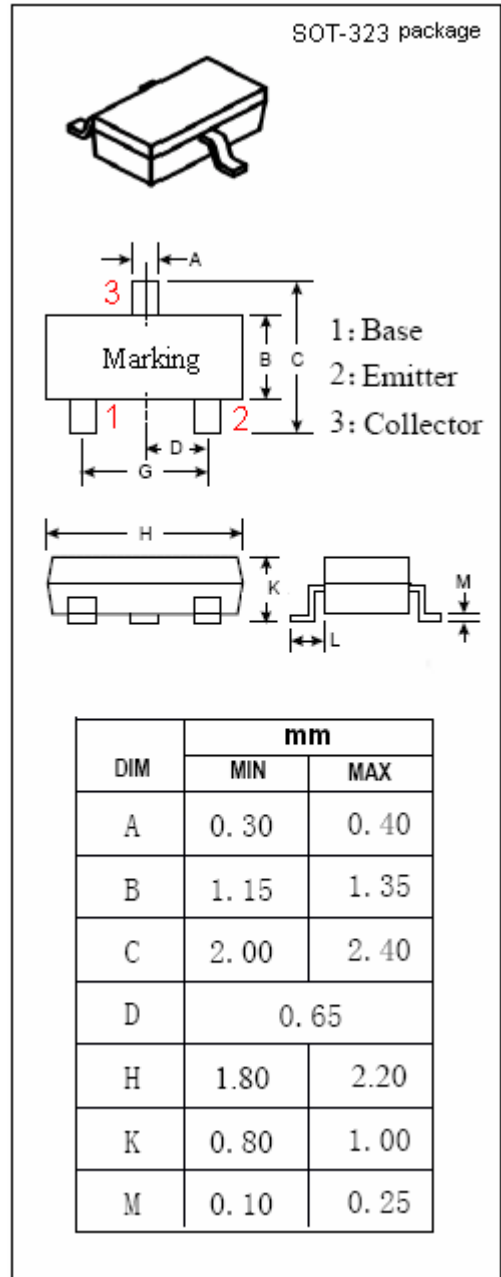
- Low Noise
- High Gain

APPLICATIONS

- Designed for use in VHF RF amplifier, local oscillator, mixer.

ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

| SYMBOL           | PARAMETER  | VALUE   | UNIT |
|------------------|--|---------|------|
| V <sub>CB0</sub> | Collector-Base Voltage                               | 30      | V    |
| V <sub>CEO</sub> | Collector-Emitter Voltage                            | 20      | V    |
| V <sub>EBO</sub> | Emitter-Base Voltage                                 | 3.0     | V    |
| I <sub>C</sub>   | Collector Current-Continuous                         | 50      | mA   |
| P <sub>C</sub>   | Collector Power Dissipation<br>@T <sub>C</sub> =25°C | 0.1     | W    |
| T <sub>J</sub>   | Junction Temperature                                 | 150     | °C   |
| T <sub>stg</sub> | Storage Temperature Range                            | -55~150 | °C   |



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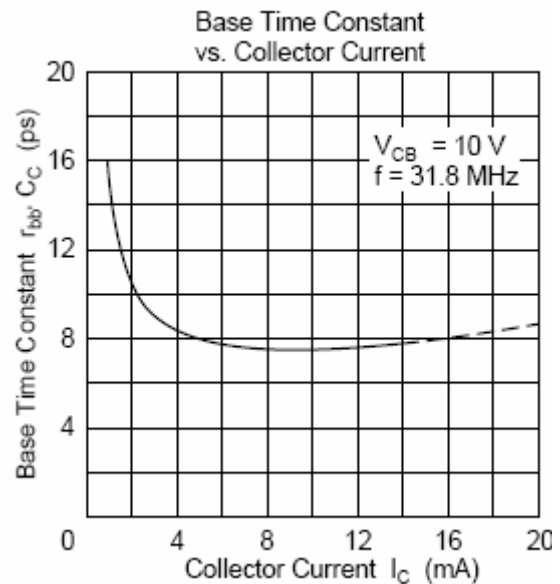
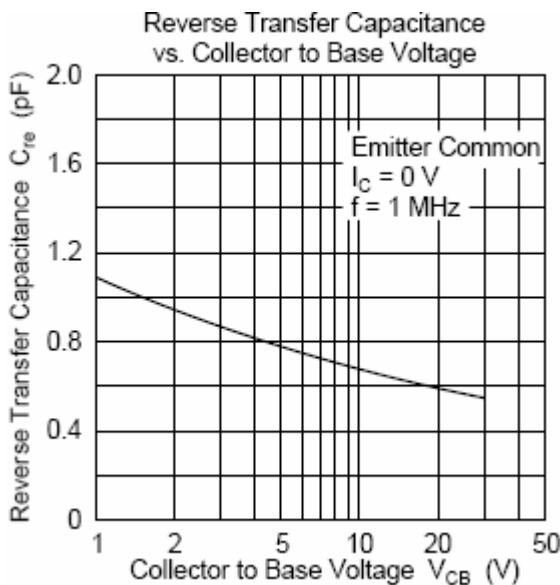
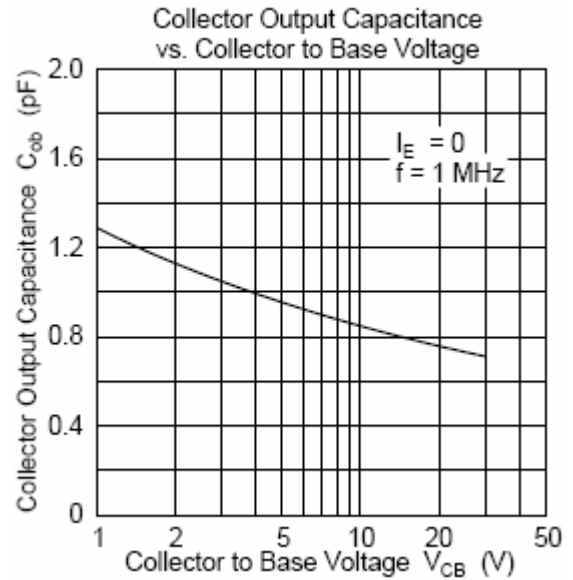
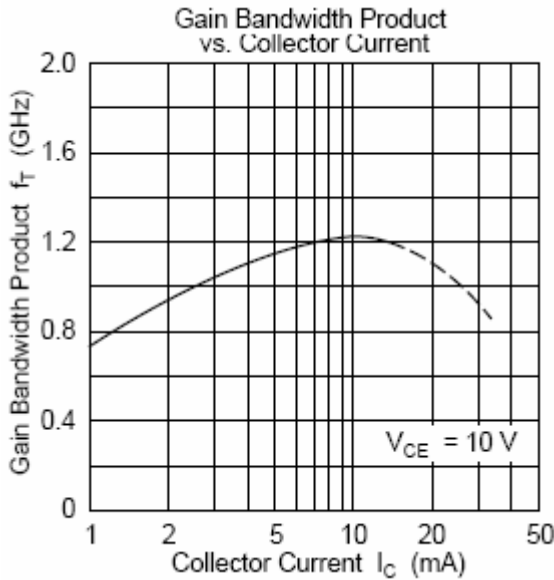
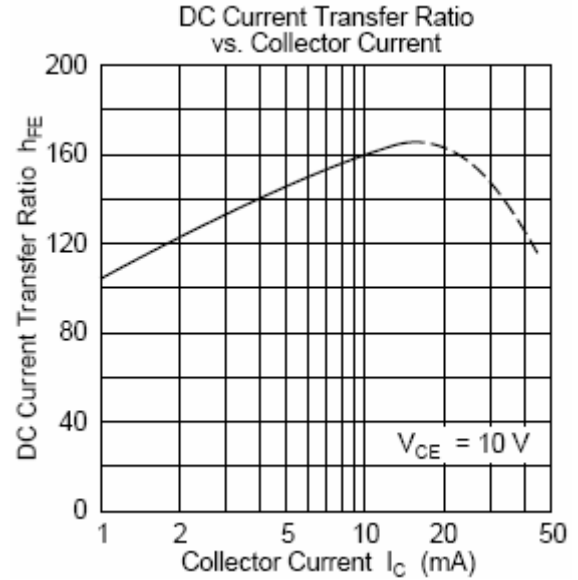
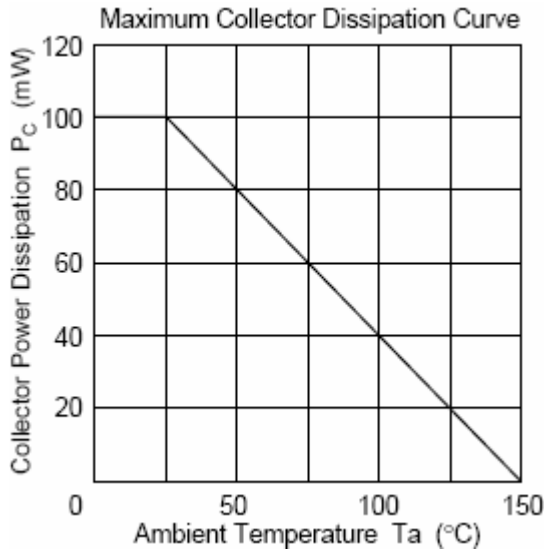
## ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

| SYMBOL        | PARAMETER                            | CONDITIONS                                  | MIN | TYP. | MAX | UNIT          |
|---------------|--------------------------------------|---|-----|------|-----|---------------|
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage     | $I_C=10\mu\text{A}; I_E=0$                  | 30  |      |     | V             |
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage  | $I_C=1\text{mA}; R_{BE}=\infty$             | 20  |      |     | V             |
| $I_{CBO}$     | Collector Cutoff Current             | $V_{CB}=15\text{V}; I_E=0$                  |     |      | 0.5 | $\mu\text{A}$ |
| $I_{EBO}$     | Emitter Cutoff Current               | $V_{EB}=3\text{V}; I_C=0$                   |     |      | 10  | $\mu\text{A}$ |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=20\text{mA}; I_B=4\text{mA}$           |     |      | 1.0 | V             |
| $h_{FE}$      | DC Current Gain                      | $I_C=10\text{mA}; V_{CE}=10\text{V}$        | 40  |      |     |               |
| $f_T$         | Current-Gain—Bandwidth Product       | $I_C=10\text{mA}; V_{CE}=10\text{V}$        | 600 |      |     | MHz           |
| $C_{OB}$      | Output Capacitance                   | $I_E=0; V_{CB}=10\text{V}; f=1.0\text{MHz}$ |     |      | 1.5 | pF            |

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