

**TRANSISTOR(PNP)****FEATURES**

- . Low noise : NF= 1dB(Typ.),10dB (Max.)
- . Complementary to 2SC2712.
- . Small Package.

**MARKING: SO , SY , SG****MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)**

| Symbol           | Parameter                   | Value   | Units |
|------------------|-----------------------------|---------|-------|
| V <sub>CB0</sub> | Collector-Base Voltage      | -50     | V     |
| V <sub>CEO</sub> | Collector-Emitter Voltage   | -50     | V     |
| V <sub>EBO</sub> | Emitter-Base Voltage        | -5      | V     |
| I <sub>C</sub>   | Current -Continuous         | -150    | mA    |
| P <sub>D</sub>   | Collector Power Dissipation | 150     | mW    |
| T <sub>J</sub>   | Junction Temperature        | 125     | °C    |
| T <sub>stg</sub> | Storage Temperature         | -55-125 | °C    |

**ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)**

| Parameter                            | Symbol               | Test conditions  | MIN | TYP | MAX  | UNIT |
|--------------------------------------|----------------------|--|-----|-----|------|------|
| Collector-base breakdown voltage     | V <sub>(BR)CBO</sub> | I <sub>C</sub> =-100u A, I <sub>E</sub> =0                                   | -50 |     |      | V    |
| Collector-emitter breakdown voltage  | V <sub>(BR)CEO</sub> | I <sub>C</sub> =-1mA, I <sub>B</sub> =0                                      | -50 |     |      | V    |
| Emitter-base breakdown voltage       | V <sub>(BR)EBO</sub> | I <sub>E</sub> =-100 u A, I <sub>C</sub> =0                                  | -5  |     |      | V    |
| Collector cut-off current            | I <sub>CBO</sub>     | V <sub>CB</sub> =-50V, I <sub>E</sub> =0                                     |     |     | -0.1 | u A  |
| Emitter cut-off current              | I <sub>EBO</sub>     | V <sub>EB</sub> =-5V, I <sub>C</sub> =0                                      |     |     | -0.1 | u A  |
| DC current gain                      | h <sub>FE</sub>      | V <sub>CE</sub> =-6V, I <sub>C</sub> =-2mA                                   | 70  |     | 400  |      |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> =-100mA, I <sub>B</sub> =-10mA                                |     |     | -0.3 | V    |
| Transition frequency                 | f <sub>T</sub>       | V <sub>CE</sub> =-10V, I <sub>C</sub> =-1mA                                  | 80  |     |      | MHz  |
| Collector output capacitance         | C <sub>ob</sub>      | V <sub>CB</sub> =-10V, I <sub>E</sub> =0, f=1MHz                             |     |     | 7    | pF   |
| Noise figure                         | NF                   | V <sub>CE</sub> =-6V, I <sub>C</sub> =0.1mA,<br>f=1KHZ, R <sub>g</sub> =10KΩ |     |     | 10   | dB   |

**CLASSIFICATION OF h<sub>FE</sub>**

| Rank  | O      | Y       | GR(G)   |
|-------|--------|---------|---------|
| Range | 70-140 | 120-240 | 200-400 |

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# Typical Characteristics

