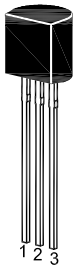
# ST 2SD966

## NPN Silicon Epitaxial Planar Transistor

for low-frequency power amplification and stroboscope.

The transistor is subdivided into three groups P, Q and R, according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.




1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

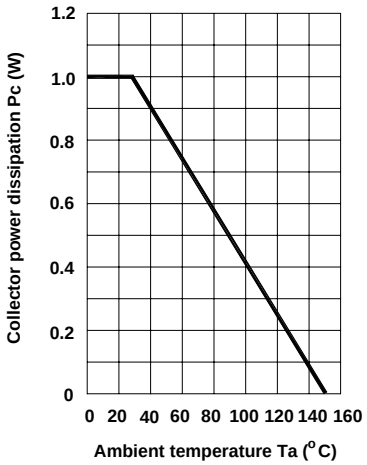
**Absolute Maximum Ratings ($T_a$ = 25 °C)**

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | 40 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | 20 | V |
| Emitter to Base Voltage | $V_{EBO}$ | 7 | V |
| Collector Current | $I_C$ | 5 | A |
| Peak Collector Current | $I_{CP}$ | 8 | A |
| Collector Power Dissipation | $P_C$ | 1 | W |
| Junction Temperature | $T_j$ | 150 | °C |
| Storage Temperature Range | $T_{stg}$ | - 55 to + 150 | °C |

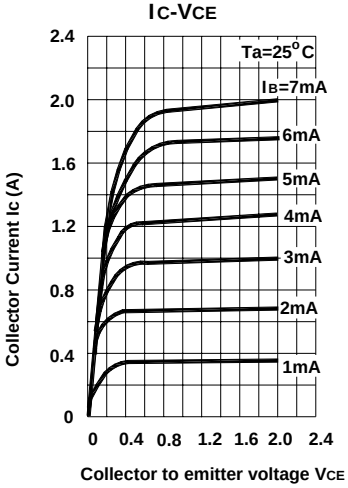
**Characteristics at $T_a$ = 25 °C**

| Parameter | | | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|---|
| DC Current Gain | | | | | | | |
| at $V_{CE}$ = 2 V, $I_C$ = 0.5 A | Current Gain Group | P | $h_{FE}$ | 120 | - | 250 | - |
| | | Q | $h_{FE}$ | 230 | - | 380 | - |
| | | R | $h_{FE}$ | 340 | - | 600 | - |
| at $V_{CE}$ = 2 V, $I_C$ = 2 A | | | $h_{FE}$ | 150 | - | - | - |
| Collector Base Cutoff Current at $V_{CB}$ = 10 V | | | $I_{CBO}$ | - | - | 0.1 | µA |
| Emitter Base Cutoff Current at $V_{EB}$ = 7 V | | | $I_{EBO}$ | - | - | 0.1 | µA |
| Collector Emitter Breakdown Voltage at $I_C$ = 1 mA | | | $V_{CEO}$ | 20 | - | - | V |
| Emitter Base Breakdown Voltage at $I_E$ = 10 µA | | | $V_{EBO}$ | 7 | - | - | V |
| Collector Emitter Saturation Voltage at $I_C$ = 3 A, $I_B$ = 0.1 A | | | $V_{CE(sat)}$ | - | - | 1 | V |
| Transition Frequency at $V_{CB}$ = 6 V, $I_E$ = -50 mA, f = 200 MHz | | | $f_T$ | - | 150 | - | MHz |
| Collector Output Capacitance at $V_{CB}$ = 20 V, f = 1.0 MHz | | | $C_{ob}$ | - | - | 50 | pF |

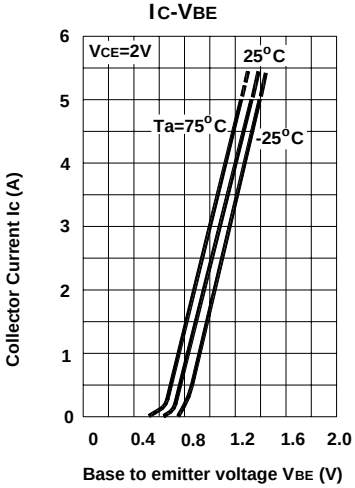
**Pc-Ta**



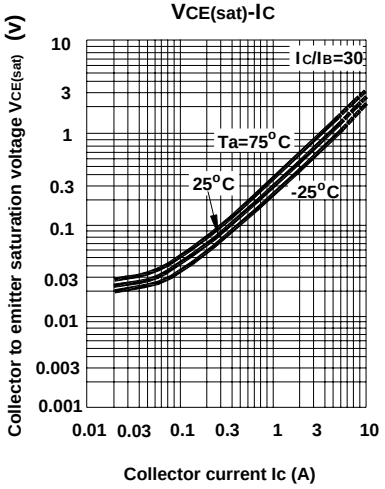

**IC-VCE**



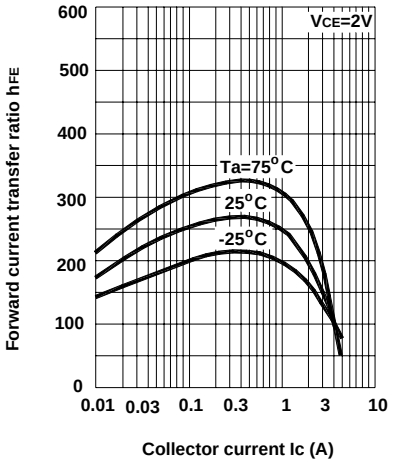

**IC-VBE**



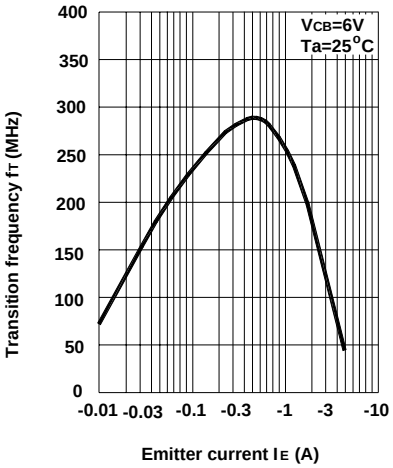

**VCE(sat)-IC**




**hFE-IC**




**fT-IE**




**Cob-VCB**