



# 《风光欣》技术资料

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## C2001

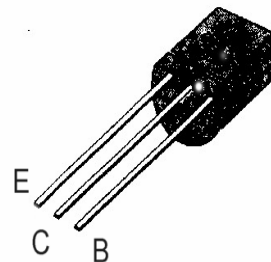
NPN EPITAXIAL SILICON TRANSISTOR

### GENERAL PURPOSE APPLICATIONS

High Hfe and LOW  $V_{CE(sat)}$

### ABSOLUTE MAXIMUM RATINGS( $T_A=25$ )

| Characteristic            | Symbol    | Rating     | Unit |
|---------------------------|-----------|------------|------|
| Collector-Base Voltage    | $V_{CBO}$ | 30         | V    |
| Collector-Emitter Voltage | $V_{CEO}$ | 25         | V    |
| Emitter -Base Voltage     | $V_{EBO}$ | 5          | V    |
| Collector Current         | $I_C$     | 700        | mA   |
| Base Current              | $I_B$     | 150        | mA   |
| Collector Dissipation     | $P_C$     | 600        | mW   |
| Junction Temperature      | $T_J$     | 150        |      |
| Storage Temperature       | $T_{STG}$ | -55 ~ +150 |      |



### ELECTRICAL CHARACTERISTICS( $T_A=25$ )

| Characteristic                       | Symbol        | Test Conditions             | Min | Typ  | Max | Unit |
|--------------------------------------|---------------|-----------------------------|-----|------|-----|------|
| Base Emitter Voltage                 | $V_{BE}$      | $V_{CE} = 6V, I_C = 10mA,$  | 600 | 640  | 700 | mV   |
| Collector Cut-off Current            | $I_{CBO}$     | $V_{CB} = 30V, I_E = 0$     |     |      | 100 | nA   |
| Emitter Cut-off Current              | $I_{EBO}$     | $V_{EB} = 5V, I_C = 0$      |     |      | 100 | nA   |
| DC Current Gain                      | $h_{FE1}$     | $V_{CE} = 1V, I_C = 100mA,$ | 90  | 200  | 400 |      |
|                                      | $h_{FE2}$     | $V_{CE} = 1V, I_C = 700mA,$ | 50  | 140  |     |      |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 700mA, I_B = 70mA$   |     | 0.2  | 0.6 | V    |
| Base-Emitter Saturation Voltage      | $V_{BE(sat)}$ | $I_C = 700mA, I_B = 70mA$   |     | 0.95 | 1.2 | V    |
| Current Gain -Bandwidth product      | $f_T$         | $V_{CE} = 6V, I_E = 10mA$   | 50  | 170  |     | MHZ  |
| Output Capacitance                   | $C_{OB}$      | $V_{CB} = 6V, I_E = 0$      |     | 30   |     |      |
|                                      |               | $F = 1MHz$                  |     | 13   | 25  | pF   |

### Hfe CLASSIFICATION

| Classification | O      | Y       | G       |
|----------------|--------|---------|---------|
| $h_{FE1}$      | 90-180 | 135-270 | 200-400 |