



# FHD010

## NPN Silicon Darlington High Power Transistor



### Features:

1. Using triple-diffusion process.High output current. Small driving power.
2. Highest amplification factor. High inverse voltage.
3. Implementation of standards: GJB33 A-97, QZJ840611A, QZJ840611
4. Use for current output,voltage adjustment and servo circuit of numerical control machine.
5. Quality Class: JP, JT, JCT, GS, G, G+

### TECHNICAL DATA:

( $T_a = 25^\circ\text{C}$ )

| Parameter name                             | Symbols       | Unit             | Specifications |     |     |     |     |     |     |     |     |      | Test Condition                       |
|--|---------------|------------------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|------|--------------------------------------|
|  |               |                  | A              | B   | C   | D   | E   | F   | G   | H   | I   | J    |                                      |
| Collector-Emitter Voltage                  | $V_{CEO}$     | V                | 100            | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |                                      |
| Emitter-Base Voltage                       | $V_{EBO}$     | V                | 5              |     |     |     |     |     |     |     |     |      |                                      |
| Max. Collector Current                     | $I_{CM}$      | A                | 1.0            |     |     |     |     |     |     |     |     |      |                                      |
| Max. Collector Dissipation                 | $P_{CM}$      | W                | 10             |     |     |     |     |     |     |     |     |      | $T_c:75^\circ\text{C}$               |
| Junction Temperature                       | $T_{jm}$      | $^\circ\text{C}$ | 175            |     |     |     |     |     |     |     |     |      |                                      |
| Storage Temperature                        | $T_{stg}$     | $^\circ\text{C}$ | -55~+175       |     |     |     |     |     |     |     |     |      |                                      |
| Collector-Emitter Leakage Current          | $I_{CEO}$     | mA               | Max.:1.0       |     |     |     |     |     |     |     |     |      | $V_{CE}=100\text{V}$                 |
| Collector- Emitter Saturation Voltage Drop | $V_{CE(sat)}$ | V                | Max.:2.0       |     |     |     |     |     |     |     |     |      | $I_C=0.5\text{A}, I_B=0.01\text{A}$  |
| DC Current Gain                            | $h_{FE}$      |                  | Min.:500       |     |     |     |     |     |     |     |     |      | $V_{CE}=10\text{V}, I_C=0.5\text{A}$ |
| Collector-Emitter Breakdown Voltage        | $V_{(BR)CEO}$ | V                | 100            | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | $I_C=5\text{mA}$                     |
| E-Base Breakdown Voltage                   | $V_{(BR)EBO}$ | V                | 5              |     |     |     |     |     |     |     |     |      | $I_E=5\text{mA}$                     |

### Outline and Dimensions: