



Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

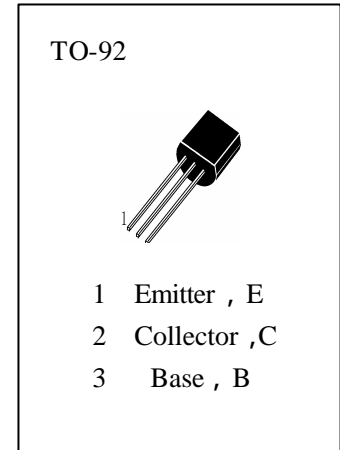
# H1740

## APPLICATIONS

Medium Speed switching

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

|   |         |
|---|---------|
| $T_{stg}$ —Storage Temperature.....       | -55~150 |
| $T_j$ —Junction Temperature.....          | 150     |
| $P_C$ —Collector Dissipation.....         | 300mW   |
| $V_{CBO}$ —Collector-Base Voltage.....    | 50V     |
| $V_{CEO}$ —Collector-Emitter Voltage..... | 40V     |
| $V_{EBO}$ —Emitter-Base Voltage.....      | 5V      |
| $I_C$ —Collector Current.....             | 100mA   |



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

| Symbol        | Characteristics                       | Min | Typ | Max | Unit | Test Conditions            |
|---------------|---------------------------------------|-----|-----|-----|------|----------------------------|
| $I_{CBO}$     | Collector Cut-off Current             |     |     | 500 | nA   | $V_{CB}=30V, I_E=0$        |
| $I_{EBO}$     | Emitter Cut-off Current               |     |     | 500 | nA   | $V_{EB}=4V, I_C=0$         |
| $h_{FE}$      | DC Current Gain                       | 120 |     | 820 |      | $V_{CE}=1V, I_C=1mA$       |
| $V_{CE(sat)}$ | Collector- Emitter Saturation Voltage |     |     | 0.4 | V    | $I_C=50mA, I_B=5mA$        |
| $BV_{CBO}$    | Collector-Base Breakdown Voltage      | 50  |     |     | V    | $I_C=50\mu A, I_E=0$       |
| $BV_{CEO}$    | Collector-Emitter Breakdown Voltage   | 40  |     |     | V    | $I_C=1mA, I_B=0$           |
| $BV_{EBO}$    | Emitter-Base Breakdown Voltage        | 5   |     |     | V    | $I_E=50\mu A, I_C=0$       |
| $f_T$         | Current Gain-Bandwidth Product        |     | 180 |     | MHz  | $V_{CE}=12V, I_C=2mA$      |
| $C_{ob}$      | Output Capacitance                    |     | 1.2 |     | pF   | $V_{CB}=6V, I_E=0, f=1MHz$ |

### $h_{FE}$ Classification

| Q       | R       | S       | E       |
|---------|---------|---------|---------|
| 120—270 | 180—390 | 270—560 | 390—820 |

