



# H1815

## AUDIO FREQUENCY AMPLIFIER

## HIGH FREQUENCY OSC

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

$T_{stg}$ —Storage Temperature..... -55~150

$T_j$ —Junction Temperature.....150

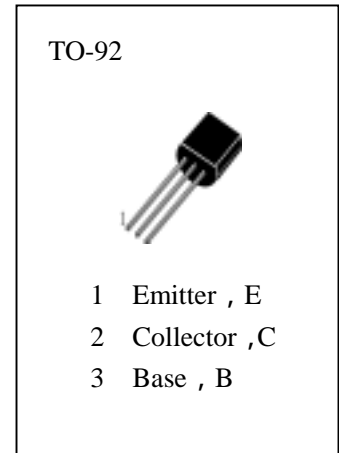
$P_C$ —Collector Dissipation.....400mW

$V_{CBO}$ —Collector-Base Voltage.....60V

$V_{CEO}$ —Collector-Emitter Voltage.....50V

$V_{EBO}$ —Emitter-Base Voltage.....5V

$I_C$ —Collector Current.....150mA



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

| Symbol        | Characteristics                       | Min | Typ | Max | Unit | Test Conditions        |
|---------------|---------------------------------------|-----|-----|-----|------|------------------------|
| $I_{CBO}$     | Collector Cut-off Current             |     |     | 100 | nA   | $V_{CB}=60V, I_E=0$    |
| $I_{EBO}$     | Emitter Cut-off Current               |     |     | 100 | nA   | $V_{EB}=5V, I_C=0$     |
| $H_{FE(1)}$   | DC Current Gain                       | 70  |     | 700 |      | $V_{CE}=6V, I_C=2mA$   |
| $H_{FE(2)}$   |                                       | 25  |     |     |      | $V_{CE}=6V, I_C=150mA$ |
| $V_{CE(sat)}$ | Collector- Emitter Saturation Voltage |     |     | 250 | mV   | $I_C=100mA, I_B=10mA$  |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage       |     |     | 1.0 | V    | $I_C=100mA, I_B=10mA$  |
| $BV_{CBO}$    | Collector-Base Breakdown Voltage      | 60  |     |     | V    | $I_C=100 \mu A, I_E=0$ |
| $BV_{CEO}$    | Collector-Emitter Breakdown Voltage   | 50  |     |     | V    | $I_C=1mA, I_B=0$       |
| $BV_{EBO}$    | Emitter-Base Breakdown Voltage        | 5   |     |     | V    | $I_E=100 \mu A, I_C=0$ |
| $f_T$         | Current Gain-Bandwidth Product        | 80  |     |     | MHZ  | $V_{CE}=10V, I_C=1mA$  |

### $h_{FE}$ Classification

| O      | Y       | GR      | BL      |
|--------|---------|---------|---------|
| 70—140 | 120—240 | 200—400 | 350—700 |