

**DESCRIPTION**

- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -60V(\text{Min})$
- Low Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = -1.0V(\text{Max}) @ I_C = -3.0A$
- Complementary to 2SD880

**APPLICATIONS**

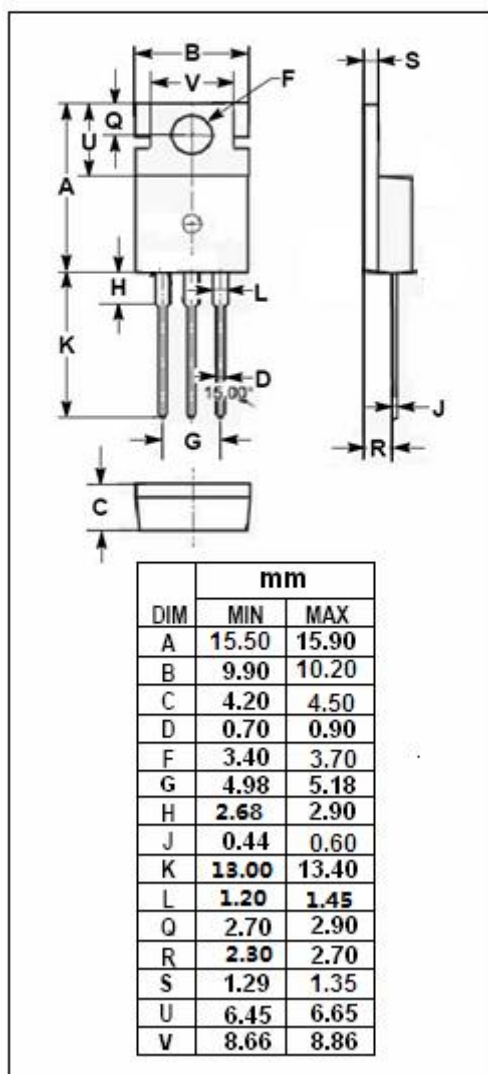
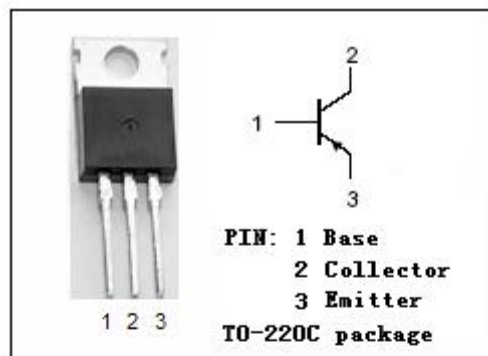
- Designed for use in audio frequency power amplifier applications

**ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )**

| SYMBOL    | PARAMETER                                               | VALUE   | UNIT             |
|-----------|---------------------------------------------------------|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                                  | -60     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                               | -60     | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                    | -7      | V                |
| $I_C$     | Collector Current-Continuous                            | -3.0    | A                |
| $I_B$     | Base Current-Continuous                                 | -0.5    | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_C=25^\circ\text{C}$ | 30      | W                |
| $T_J$     | Junction Temperature                                    | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature Range                               | -55~150 | $^\circ\text{C}$ |

**THERMAL CHARACTERISTICS**

| SYMBOL        | PARAMETER                            | MAX  | UNIT               |
|---------------|--------------------------------------|------|--------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 4.16 | $^\circ\text{C/W}$ |



**SPTECH Silicon PNP Power Transistor****2SB834****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

| SYMBOL               | PARAMETER                            | CONDITIONS                                          | MIN | TYP. | MAX  | UNIT |
|----------------------|--------------------------------------|-----------------------------------------------------|-----|------|------|------|
| V <sub>(BR)CEO</sub> | Collector-Emitter Breakdown Voltage  | I <sub>C</sub> = -50mA; I <sub>B</sub> = 0          | -60 |      |      | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = -3.0A; I <sub>B</sub> = -0.3A      |     |      | -1.0 | V    |
| V <sub>BE(on)</sub>  | Base-Emitter On Voltage              | I <sub>C</sub> = -0.5A; V <sub>CE</sub> = -5V       |     |      | -1.0 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = -60V; I <sub>E</sub> = 0          |     |      | -100 | μ A  |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> = -7V; I <sub>C</sub> = 0           |     |      | -100 | μ A  |
| h <sub>FE</sub>      | DC Current Gain                      | I <sub>C</sub> = -500mA; V <sub>CE</sub> = -5V      | R   | 60   | 120  |      |
|                      |                                      |                                                     | O   | 100  | 200  |      |
| C <sub>OB</sub>      | Collector Output Capacitance         | I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f= 1MHz |     | 150  |      | pF   |
| f <sub>T</sub>       | Current-Gain—Bandwidth Product       | I <sub>C</sub> = -0.5A; V <sub>CE</sub> = -5V       |     | 9    |      | MHz  |

## Switching times

|                  |              |                                                                                                                   |  |     |  |     |
|------------------|--------------|-------------------------------------------------------------------------------------------------------------------|--|-----|--|-----|
| t <sub>on</sub>  | Turn-on Time | I <sub>C</sub> = -2A, I <sub>B1</sub> = -I <sub>B2</sub> = -0.2A<br>R <sub>L</sub> = 15 Ω; V <sub>CC</sub> = -30V |  | 0.4 |  | μ s |
| t <sub>stg</sub> | Storage Time |                                                                                                                   |  | 1.7 |  | μ s |
| t <sub>f</sub>   | Fall Time    |                                                                                                                   |  | 0.5 |  | μ s |

◆ **h<sub>FE</sub> Classifications**

|        |         |
|--------|---------|
| O      | Y       |
| 60-120 | 100-200 |