

SPTECH Silicon NPN Power Transistor

2SC4793

DESCRIPTION

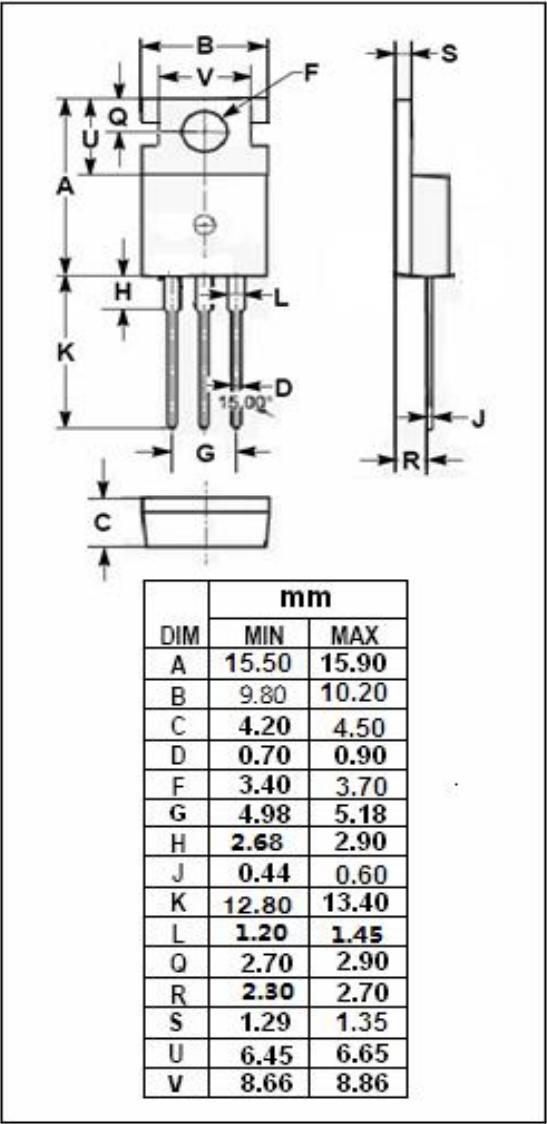
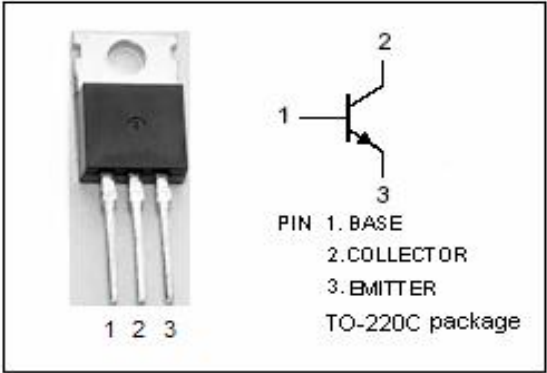
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 230V(\text{Min})$
- High Current-Gain Bandwidth Product
- Complement to Type 2SA1837
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power amplifier applications.
- Driver stage amplifier applications

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

| SYMBOL    | PARAMETER                                                 | VALUE   | UNIT               |
|-----------|-----------------------------------------------------------|---------|--------------------|
| $V_{CBO}$ | Collector-Base Voltage                                    | 230     | V                  |
| $V_{CEO}$ | Collector-Emitter Voltage                                 | 230     | V                  |
| $V_{EBO}$ | Emitter-Base Voltage                                      | 5       | V                  |
| $I_C$     | Collector Current-Continuous                              | 1       | A                  |
| $I_B$     | Base Current-Continuous                                   | 0.1     | A                  |
| $P_C$     | Collector Power Dissipation<br>@ $T_C=25^{\circ}\text{C}$ | 40      | W                  |
| $T_J$     | Junction Temperature                                      | 150     | $^{\circ}\text{C}$ |
| $T_{stg}$ | Storage Temperature                                       | -55~150 | $^{\circ}\text{C}$ |



## SPTECH Product Specification

### SPTECH Silicon NPN Power Transistor

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#### ELECTRICAL CHARACTERISTICS

T<sub>j</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> = 10mA ; I <sub>B</sub> = 0         | 230 |      |     | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 500mA; I <sub>B</sub> = 50mA      |     |      | 1.5 | V    |
| V <sub>BE(on)</sub>  | Base-Emitter On Voltage              | I <sub>C</sub> = 500mA ; V <sub>CE</sub> = 5V      |     |      | 1.0 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = 230V ; I <sub>E</sub> =0         |     |      | 1.0 | μ A  |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> = 5V; I <sub>C</sub> =0            |     |      | 1.0 | μ A  |
| h <sub>FE</sub>      | DC Current Gain                      | I <sub>C</sub> = 100mA; V <sub>CE</sub> = 5V       | 100 |      | 320 |      |
| C <sub>OB</sub>      | Output Capacitance                   | I <sub>E</sub> = 0; V <sub>CB</sub> = 10V; f= 1MHz |     | 20   |     | pF   |
| f <sub>T</sub>       | Current-Gain—Bandwidth Product       | I <sub>C</sub> = 100mA ; V <sub>CE</sub> = 10V     |     | 100  |     | MHz  |