

**DESCRIPTION**

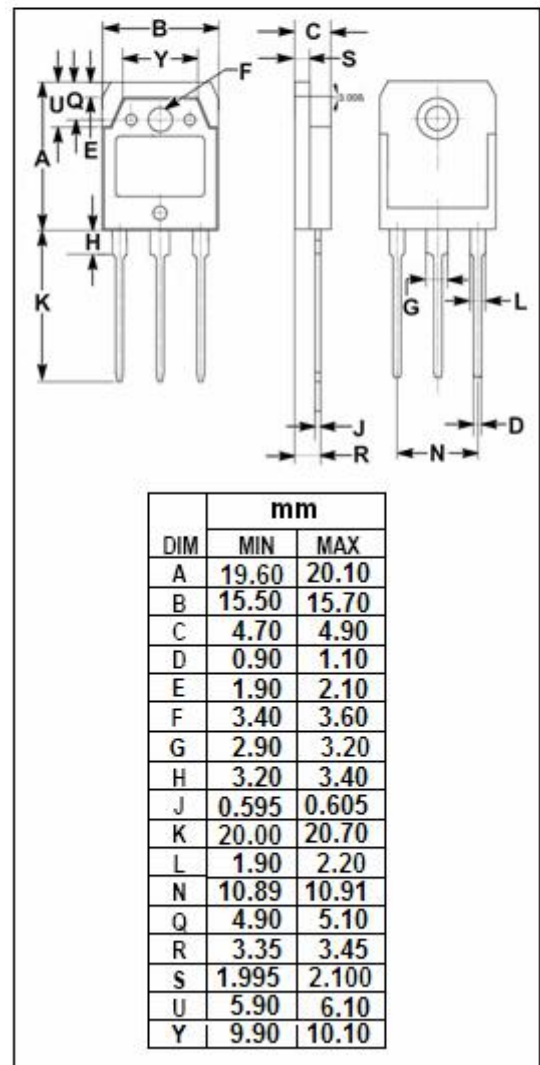
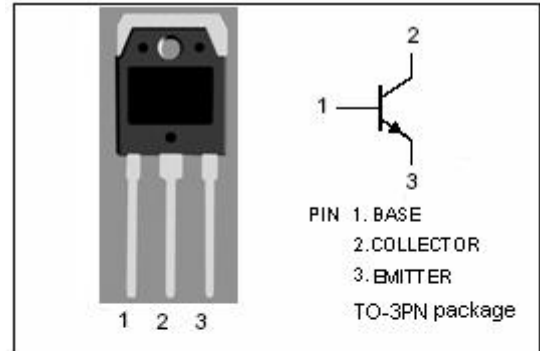
- Collector-Emitter Breakdown Voltage-  
 $V_{(BR)CEO} = 140V(\text{Min})$
- Good Linearity of  $h_{FE}$
- High Power Dissipation
- Complement to Type 2SA1106

**APPLICATIONS**

- Designed for audio and general purpose applications.

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

| SYMBOL    | PARAMETER                                               | VALUE   | UNIT             |
|-----------|---------------------------------------------------------|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                                  | 200     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                               | 140     | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                    | 6       | V                |
| $I_C$     | Collector Current-Continuous                            | 10      | A                |
| $I_B$     | Base Current-Continuous                                 | 4       | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_C=25^\circ\text{C}$ | 100     | W                |
| $T_J$     | Junction Temperature                                    | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature Range                               | -55~150 | $^\circ\text{C}$ |



**SPTECH Silicon NPN Power Transistor****2SC2581****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            | 140 |      |     | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 5A; I <sub>B</sub> = 0.5A           |     |      | 2.0 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = 140V; I <sub>E</sub> = 0           |     |      | 100 | μ A  |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> = 6V; I <sub>C</sub> = 0             |     |      | 100 | μ A  |
| h <sub>FE</sub>      | DC Current Gain                      | I <sub>C</sub> = 3A; V <sub>CE</sub> = 4V            | 30  |      |     |      |
| f <sub>T</sub>       | Current-Gain—Bandwidth Product       | I <sub>E</sub> = -0.5A; V <sub>CE</sub> = 12V        |     | 20   |     | MHz  |
| C <sub>OB</sub>      | Output Capacitance                   | I <sub>E</sub> = 0; V <sub>CB</sub> = 10V; f= 1.0MHz |     | 250  |     | pF   |