

**DESCRIPTION**

- Built-in Base-Emitter Shunt Resistors
- High DC current gain-  
 $h_{FE} = 750$  (Min) @  $I_C = -10$  Adc
- Collector-Emitter Sustaining Voltage-  
 $V_{CEO(SUS)} = -100V$  (Min)
- Complement to type 2N6284

**APPLICATIONS**

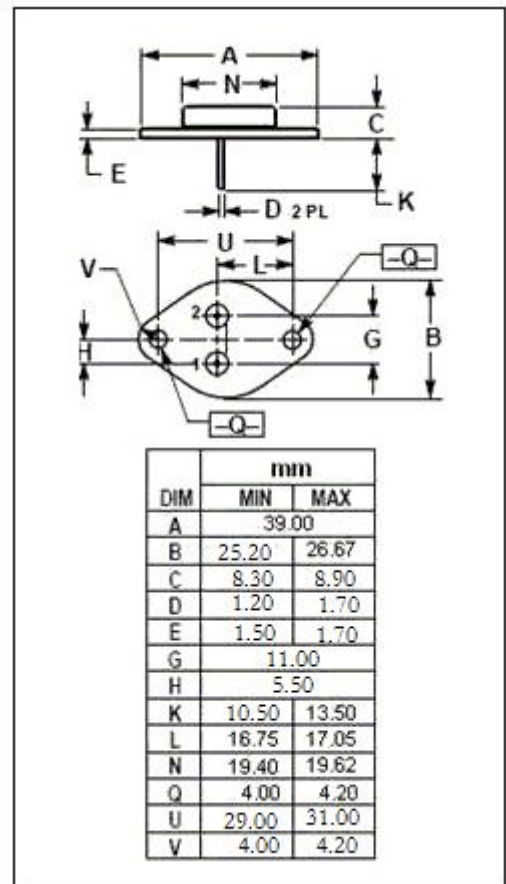
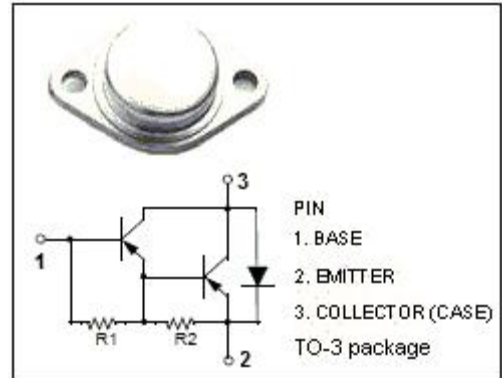
- Intended for general purpose amplifier and low frequency switching applications, such as linear and switching industrial equipment.

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

| SYMBOL    | PARAMETER                                           | VALUE   | UNIT             |
|-----------|-----------------------------------------------------|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                              | -100    | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                           | -100    | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                | -5.0    | V                |
| $I_C$     | Collector Current -Continuous                       | -20     | A                |
| $I_{CP}$  | Collector Current-Peak                              | -40     | A                |
| $I_B$     | Base Current                                        | -0.5    | A                |
| $P_C$     | Collector Power Dissipation@ $T_C=25^\circ\text{C}$ | 160     | W                |
| $T_j$     | Junction Temperature                                | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature                                 | -65~150 | $^\circ\text{C}$ |

**THERMAL CHARACTERISTICS**

| SYMBOL        | PARAMETER                           | MAX  | UNIT               |
|---------------|-------------------------------------|------|--------------------|
| $R_{th\ j-c}$ | ThermalResistance, Junction to Case | 1.09 | $^\circ\text{C/W}$ |



**SPTECH Silicon PNP Darlington Power Transistor****2N6286****ELECTRICAL CHARACTERISTICS** **$T_C=25^{\circ}\text{C}$  unless otherwise specified**

| SYMBOL          | PARAMETER                            | CONDITIONS                                                                                                                                     | MIN  | MAX          | UNIT |
|-----------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------|------|
| $V_{CE0(SUS)}$  | Collector-Emitter Sustaining Voltage | $I_C = -50\text{mA}$ ; $I_B = 0$                                                                                                               | -100 |              | V    |
| $V_{CE(sat)-1}$ | Collector-Emitter Saturation Voltage | $I_C = -10\text{A}$ ; $I_B = -40\text{mA}$                                                                                                     |      | -2.0         | V    |
| $V_{CE(sat)-2}$ | Collector-Emitter Saturation Voltage | $I_C = -20\text{A}$ ; $I_B = -200\text{mA}$                                                                                                    |      | -3.0         | V    |
| $V_{BE(sat)}$   | Base-Emitter Saturation voltage      | $I_C = -20\text{A}$ ; $I_B = -200\text{mA}$                                                                                                    |      | -4.0         | V    |
| $V_{BE(on)}$    | Base-Emitter On voltage              | $I_C = -10\text{A}$ ; $V_{CE} = -3\text{V}$                                                                                                    |      | -2.8         | V    |
| $I_{CEO}$       | Collector Cutoff current             | $V_{CE} = -50\text{V}$ ; $I_B = 0$                                                                                                             |      | -1.0         | mA   |
| $I_{CEX}$       | Collector Cutoff current             | $V_{CE} = -100\text{V}$ ; $V_{BE(off)} = -1.5\text{V}$<br>$V_{CE} = -100\text{V}$ ; $V_{BE(off)} = -1.5\text{V}$ , $T_C = 150^{\circ}\text{C}$ |      | -0.5<br>-5.0 | mA   |
| $I_{EBO}$       | Emitter Cut-off current              | $V_{EB} = -5\text{V}$ ; $I_C = 0$                                                                                                              |      | -2.0         | mA   |
| $h_{FE-1}$      | DC Current Gain                      | $I_C = -10\text{A}$ ; $V_{CE} = -3\text{V}$                                                                                                    | 750  | 18000        |      |
| $h_{FE-2}$      | DC Current Gain                      | $I_C = -20\text{A}$ ; $V_{CE} = -3\text{V}$                                                                                                    | 100  |              |      |
| $C_{OB}$        | Output Capacitance                   | $I_E = 0$ ; $V_{CB} = -10\text{V}$ ; $f_{test} = 1.0\text{MHz}$                                                                                |      | 600          | pF   |