

# isc Silicon PNP Power Transistor

## 2SB925

### DESCRIPTION

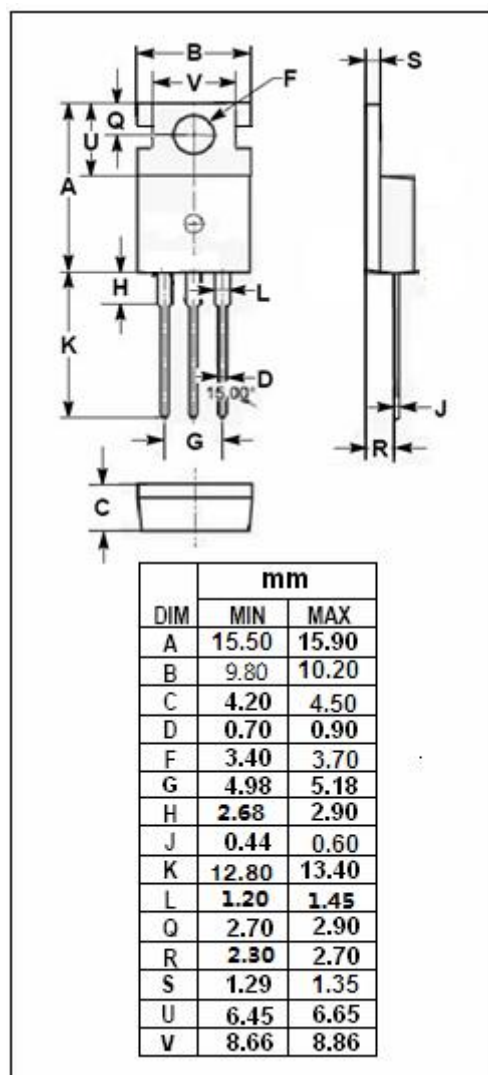
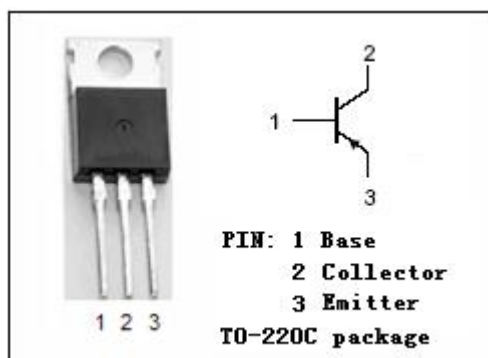
- High Collector Current::  $I_C = -7A$
- Low Collector Saturation Voltage  
:  $V_{CE(sat)} = -0.6V(Max)@I_C = -5A$
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- Designed for low voltage switching applications.

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

| SYMBOL    | PARAMETER                                      | VALUE   | UNIT        |
|-----------|--|---------|-------------|
| $V_{CBO}$ | Collector-Base Voltage                         | -40     | V           |
| $V_{CEO}$ | Collector-Emitter Voltage                      | -20     | V           |
| $V_{EBO}$ | Emitter-Base Voltage                           | -5      | V           |
| $I_C$     | Collector Current-Continuous                   | -7      | A           |
| $I_{CM}$  | Collector Current-Peak                         | -12     | A           |
| $P_C$     | Total Power Dissipation<br>@ $T_C=25^{\circ}C$ | 30      | W           |
| $T_J$     | Junction Temperature                           | 150     | $^{\circ}C$ |
| $T_{stg}$ | Storage Temperature Range                      | -55~150 | $^{\circ}C$ |



**isc Silicon PNP Power Transistor****2SB925****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> = -10mA; I <sub>B</sub> = 0          | -20 |      |      | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = -5A; I <sub>B</sub> = -0.16A       |     |      | -0.6 | V    |
| V <sub>BE(sat)</sub> | Base-Emitter Saturation Voltage      | I <sub>C</sub> = -5A; I <sub>B</sub> = -0.16A       |     |      | -1.5 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = -40V; I <sub>E</sub> = 0          |     |      | -50  | μ A  |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> = -5V; I <sub>C</sub> = 0           |     |      | -50  | μ A  |
| h <sub>FE-1</sub>    | DC Current Gain                      | I <sub>C</sub> = -0.1A; V <sub>CE</sub> = -2V       | 45  |      |      |      |
| h <sub>FE-2</sub>    | DC Current Gain                      | I <sub>C</sub> = -2A; V <sub>CE</sub> = -2V         | 60  |      | 260  |      |
| C <sub>OB</sub>      | Collector Output Capacitance         | I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f= 1MHz |     | 140  |      | pF   |
| f <sub>T</sub>       | Current-Gain—Bandwidth Product       | I <sub>C</sub> = -0.5A; V <sub>CE</sub> = -10V      |     | 150  |      | MHz  |

**◆ h<sub>FE-2</sub> Classifications**

| R      | Q      | P       |
|--------|--------|---------|
| 60-120 | 90-180 | 130-260 |

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