

**isc Silicon PNP Power Transistor****2SB563****DESCRIPTION**

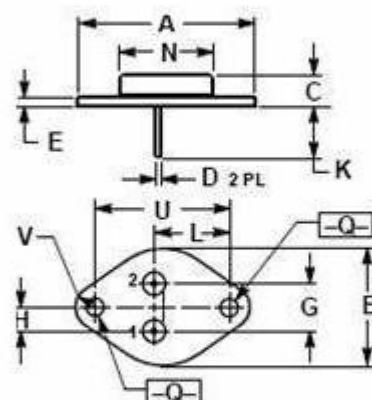
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -80V(\text{Min})$
- Low Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = -1.0V(\text{Max}) @ I_C = -3A$
- Complement to Type 2SD297
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for low frequency power amplifier applications.

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

| SYMBOL    | PARAMETER   | VALUE   | UNIT             |
|-----------|---|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                                  | -80     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                               | -80     | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                    | -5      | V                |
| $I_C$     | Collector Current-Continuous                            | -3.0    | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_C=25^\circ\text{C}$ | 25      | W                |
| $T_J$     | Junction Temperature                                    | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature Range                               | -55~150 | $^\circ\text{C}$ |



| DIM | mm    |       |
|-----|-------|-------|
|     | MIN   | MAX   |
| A   | 31.40 | 31.80 |
| B   | 17.30 | 17.70 |
| C   | 6.70  | 7.10  |
| D   | 0.70  | 0.90  |
| E   | 1.40  | 1.60  |
| G   | 5.08  |       |
| H   | 2.54  |       |
| K   | 9.80  | 10.20 |
| L   | 14.70 | 14.90 |
| N   | 12.40 | 12.60 |
| Q   | 3.60  | 3.80  |
| U   | 24.30 | 24.50 |
| V   | 3.50  | 3.70  |

**isc Silicon PNP Power Transistor****2SB563****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   | -80 |      |      | V    |
| V <sub>(BR)CBO</sub> | Collector-Base Breakdown Voltage     | I <sub>C</sub> = -1mA; I <sub>E</sub> = 0    | -80 |      |      | V    |
| V <sub>(BR)EBO</sub> | Emitter-Base Breakdown Voltage       | I <sub>E</sub> = -1mA; I <sub>C</sub> = 0    | -5  |      |      | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = -3A; I <sub>B</sub> = -0.3A |     |      | -1.0 | V    |
| V <sub>BE(sat)</sub> | Base-Emitter Saturation Voltage      | I <sub>C</sub> = -3A; I <sub>B</sub> = -0.3A |     |      | -1.5 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = -80V; I <sub>E</sub> = 0   |     |      | -0.1 | mA   |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> = -5V; I <sub>C</sub> = 0    |     |      | -0.1 | mA   |
| h <sub>FE</sub>      | DC Current Gain                      | I <sub>C</sub> = -1A; V <sub>CE</sub> = -2V  | 30  |      | 200  |      |

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