

**isc Silicon NPN Power Transistors**

**2SD676**

**DESCRIPTION**

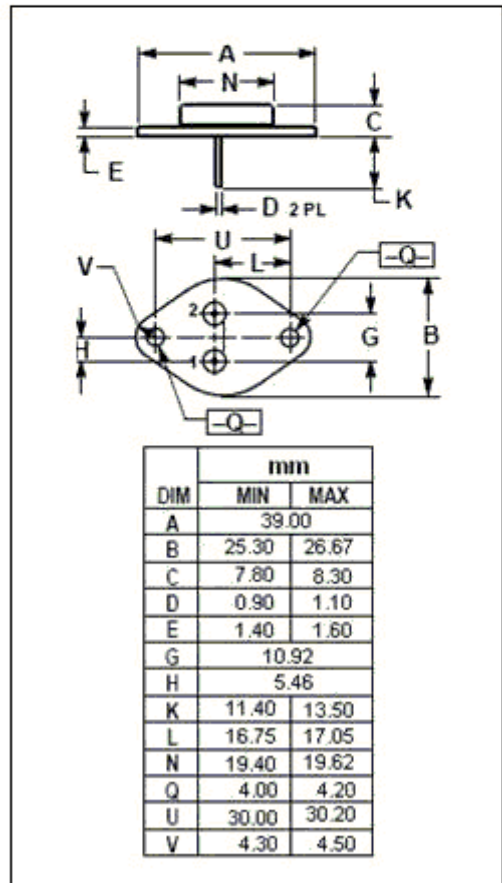
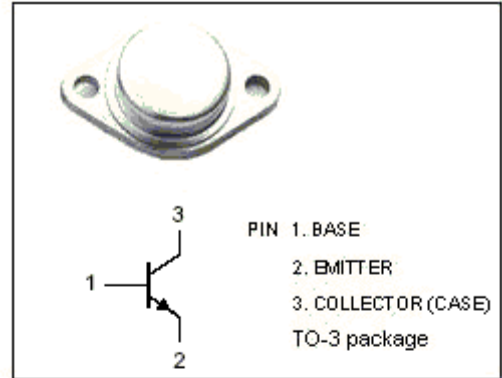
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 160V(\text{Min})$
- High Power Dissipation-  
:  $P_C = 125W(\text{Max})@T_C = 25^\circ\text{C}$
- Complement to Type 2SB656

**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                                    | 160     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                                 | 160     | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                      | 5       | V                |
| $I_C$     | Collector Current-Continuous                              | 12      | A                |
| $I_{CM}$  | Collector Current-Peak                                    | 20      | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_C = 25^\circ\text{C}$ | 125     | W                |
| $T_J$     | Junction Temperature                                      | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature                                       | -55~150 | $^\circ\text{C}$ |



**isc Silicon NPN Power Transistors****2SD676****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> = 50mA; R <sub>BE</sub> = ∞ | 160 |      |     | V    |
| V <sub>(BR)EBO</sub> | Emitter-Base Breakdown Voltage       | I <sub>E</sub> = 5mA; I <sub>C</sub> = 0   | 5   |      |     | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 6A; I <sub>B</sub> = 0.6A |     |      | 2.5 | V    |
| V <sub>BE(on)</sub>  | Base-Emitter On Voltage              | I <sub>C</sub> = 1A; V <sub>CE</sub> = 5V  |     |      | 1.5 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = 120V; I <sub>E</sub> = 0 |     |      | 0.1 | mA   |
| h <sub>FE-1</sub>    | DC Current Gain                      | I <sub>C</sub> = 1A; V <sub>CE</sub> = 5V  | 60  |      | 200 |      |
| h <sub>FE-2</sub>    | DC Current Gain                      | I <sub>C</sub> = 6A; V <sub>CE</sub> = 5V  | 20  |      |     |      |

◆ **h<sub>FE-1</sub> Classifications**

| B      | C       |
|--------|---------|
| 60-120 | 100-200 |