

**isc Silicon NPN Power Transistor**

**KTD3055**

**DESCRIPTION**

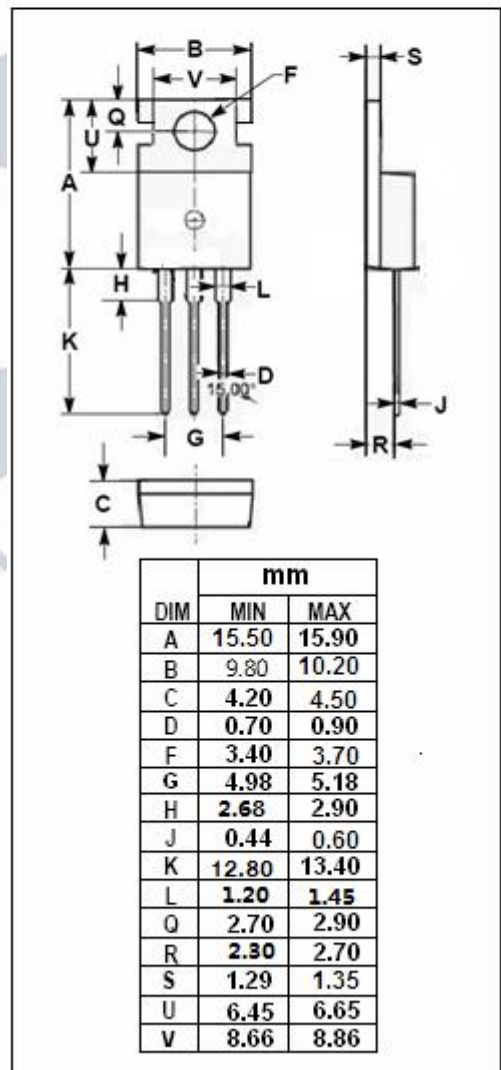
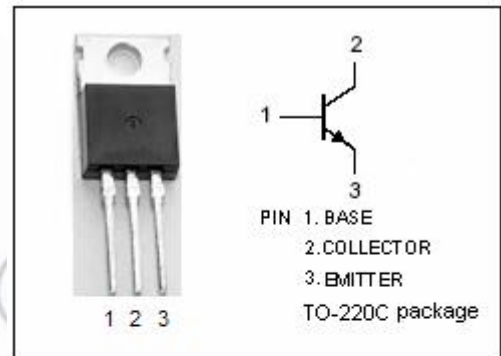
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 120V(\text{Min})$
- Complement to Type KTB2955

**APPLICATIONS**

- High power amplifier applications
- Recommended for 30~35W audio frequency amplifier output stage application.

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

| SYMBOL    | PARAMETER   | VALUE   | UNIT             |
|-----------|---|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                                  | 120     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                               | 120     | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                    | 5       | V                |
| $I_C$     | Collector Current-Continuous                            | 10      | A                |
| $I_B$     | Base Current  | 1       | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_c=25^\circ\text{C}$ | 40      | W                |
| $T_J$     | Junction Temperature                                    | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature                                     | -55~150 | $^\circ\text{C}$ |



**isc Silicon NPN Power Transistor****KTD3055****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 ; I <sub>B</sub> = 0                          | 120 |      |     | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 5A; I <sub>B</sub> = 0.5A                          |     |      | 2.5 | V    |
| V <sub>BE(on)</sub>  | Base-Emitter On Voltage              | I <sub>C</sub> = 5A ; 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                          |     |      | 10  | μ A  |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> = 5V; I <sub>C</sub> =0                             |     |      | 10  | μ A  |
| h <sub>FE</sub>      | DC Current Gain                      | I <sub>C</sub> = 1A ; V <sub>CE</sub> = 5V                          | 55  |      | 160 |      |
| C <sub>OB</sub>      | Output Capacitance                   | I <sub>E</sub> = 0; V <sub>CB</sub> = 10V; f <sub>test</sub> = 1MHz |     | 170  |     | pF   |
| f <sub>T</sub>       | Current Gain-Bandwidth Product       | I <sub>C</sub> = 1A ; V <sub>CE</sub> = 5V                          |     | 12   |     | MHz  |

◆ **h<sub>FE</sub> Classifications**

| R      | O      |
|--------|--------|
| 55-110 | 80-160 |