



Micro Commercial Components

Micro Commercial Components  
20736 Marilla Street Chatsworth  
CA 91311  
Phone: (818) 701-4933  
Fax: (818) 701-4939

## Features

- Designed for general-purpose switching and amplifier applications
- With TO-3 package

## Maximum Ratings

| Symbol    | Rating                      | Rating      | Unit |
|-----------|-----------------------------|-------------|------|
| $V_{CEO}$ | Collector-Emitter Voltage   | 60          | V    |
| $V_{CBO}$ | Collector-Base Voltage      | 100         | V    |
| $V_{EBO}$ | Emitter-Base Voltage        | 7.0         | V    |
| $I_C$     | Collector Current           | 10          | A    |
| $P_C$     | Collector power dissipation | 80          | W    |
| $T_J$     | Junction Temperature        | -55 to +150 | °C   |
| $T_{STG}$ | Storage Temperature         | -55 to +150 | °C   |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Min | Max | Units |
|--------|-----------|-----|-----|-------|
|--------|-----------|-----|-----|-------|

### OFF CHARACTERISTICS

|               |                                                                         |     |     |     |
|---------------|-------------------------------------------------------------------------|-----|-----|-----|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage<br>( $I_C=100\text{mA}$ , $I_B=0$ ) | 60  | --- | Vdc |
| $I_{CBO}$     | Collector-Base Cutoff Current<br>( $V_{CB}=100\text{Vdc}$ , $I_E=0$ )   | --- | 1.0 | mA  |
| $I_{EBO}$     | Emitter-Base Cutoff Current<br>( $V_{EB}=7.0\text{Vdc}$ , $I_C=0$ )     | --- | 5.0 | mA  |
| $I_{CEO}$     | Collector-Emitter Cutoff Current<br>( $V_{CE}=30\text{Vdc}$ , $I_B=0$ ) | --- | 0.7 | mA  |

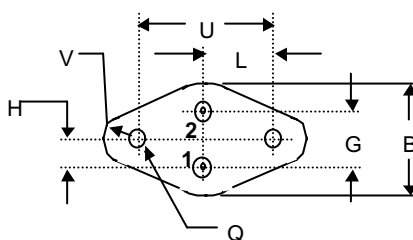
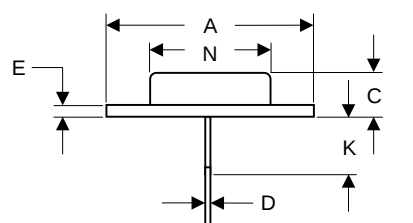
### ON CHARACTERISTICS

|               |                                                                                            |     |     |     |
|---------------|--------------------------------------------------------------------------------------------|-----|-----|-----|
| $h_{FE(1)}$   | Forward Current Transfer ratio<br>( $I_C=4.0\text{A}$ , $V_{CE}=4.0\text{Vdc}$ )           | 20  | 100 | --- |
| $h_{FE(2)}$   | Forward Current Transfer ratio<br>( $I_C=10\text{A}$ , $V_{CE}=4.0\text{Vdc}$ )            | 5.0 | --- | --- |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage<br>( $I_C=4.0\text{A}$ , $I_B=0.4\text{A}$ )          | --- | 1.0 | Vdc |
| $V_{BE(on)}$  | Base-Emitter Saturation Voltage<br>( $I_C=4.0\text{A}$ , $V_{CE}=4.0\text{Vdc}$ )          | --- | 1.5 | Vdc |
| $f_T$         | Transition Frequency<br>( $V_{CE}=4.0\text{Vdc}$ , $I_C=1.0\text{A}$ , $f=1.0\text{MHz}$ ) | 2.5 | --- | MHz |

# 2N3055

## 10 Amp NPN Silicon Power Transistors 80 W

### TO-3



PIN 1. BASE  
PIN 2. EMITTER  
CASE. COLLECTOR

| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 1.550  | REF   | 39.37 | REF   |      |
| B   | ---    | 1.050 | ---   | 26.67 |      |
| C   | .250   | .335  | 6.35  | 8.51  |      |
| D   | .038   | .043  | 0.97  | 1.09  |      |
| E   | 0.55   | 0.70  | 1.40  | 1.77  |      |
| G   | .430   | BSC   | 10.92 | BSC   |      |
| H   | .215   | BSC   | 5.46  | BSC   |      |
| K   | .440   | .480  | 11.18 | 12.19 |      |
| L   | .665   | BSC   | 16.89 | BSC   |      |
| N   | ---    | .830  | ---   | 21.08 |      |
| Q   | .151   | .165  | 3.84  | 4.19  | Ø    |
| U   | 1.187  | BSC   | 30.15 | BSC   |      |
| V   | .131   | .188  | 3.33  | 4.77  |      |

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