

TO-251-3L Plastic-Encapsulate Transistors

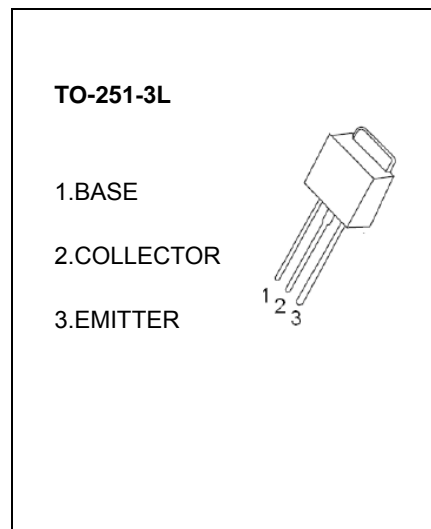
3DA752 TRANSISTOR (NPN)

FEATURES

- Power Dissipation

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|------------------|-------------------------------|---------|------|
| V _{CB0} | Collector-Base Voltage | 40 | V |
| V _{CEO} | Collector-Emitter Voltage | 30 | V |
| V _{EBO} | Emitter-Base Voltage | 5 | V |
| I _C | Collector Current -Continuous | 2 | A |
| P _C | Collector power dissipation | 1.2 | W |
| T _J | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55-150 | °C |



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|-----------------------|---|-----|-----|-----|------|
| Collector-base breakdown voltage | V _{(BR)CBO} | I _C =100μA, I _E =0 | 40 | | | V |
| Collector-emitter breakdown voltage | V _{(BR)CEO} | I _C =10mA, I _B =0 | 30 | | | V |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E =1mA, I _C =0 | 5 | | | V |
| Collector cut-off current | I _{CBO} | V _{CB} =40V, I _E =0 | | | 0.1 | μA |
| Emitter cut-off current | I _{EBO} | V _{EB} =5V, I _C =0 | | | 0.1 | μA |
| DC current gain | h _{FE} | V _{CE} =2V, I _C =500mA | 100 | | 400 | |
| Collector-emitter saturation voltage | V _{CE(sat)1} | I _C =2A, I _B =0.2A | | | 0.8 | V |
| | V _{CE(sat)2} | I _C =1.5A, I _B =30mA | | | 2 | V |
| Transition frequency | f _T | V _{CE} =5V, I _C =500mA | | 120 | | MHz |
| Collector output capacitance | C _{ob} | V _{CB} =10V, I _E =0, f=1MHz | | 13 | | pF |

CLASSIFICATION OF h_{FE}

| Rank | O | Y | G |
|-------|---------|---------|---------|
| Range | 100-200 | 160-320 | 200-400 |