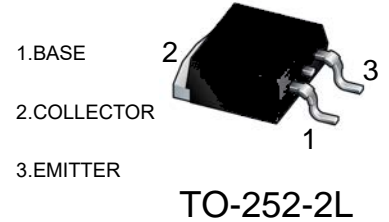


### Features

- High DC Current Gain
- Electrically Similar to Popular TIP122
- Built-in a Damper Diode at E-C

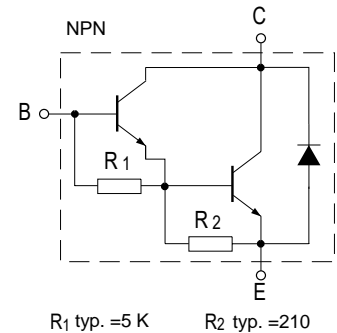


### Package Marking and Ordering Information

| Product ID | Pack      | Marking | Qty(PCS) |
|------------|-----------|---------|----------|
| MJD122     | TO-252-2L | MJD122  | 2500     |

### Maxmim Ratings (Ta=25 unless otherwise noted)

| Symbol         | Parameter  | Value   | Unit |
|----------------|--|---------|------|
| $V_{CBO}$      | Collector-Base Voltage                           | 100     | V    |
| $V_{CEO}$      | Collector-Emitter Voltage                        | 100     | V    |
| $V_{EBO}$      | Emitter-Base Voltage                             | 5       | V    |
| $I_C$          | Collector Current -Continuous                    | 8       | A    |
| $P_C$          | Collector Power Dissipation                      | 1.5     | W    |
| $T_J, T_{stg}$ | Operation Junction and Storage Temperature Range | -55-150 | °C   |



### Electrcal Charcteristics (Ta=25 unless otherwise specified)

| Parameter                            | Symbol         | Test conditions               | Min  | Typ | Max   | Unit    |
|--------------------------------------|----------------|-------------------------------|------|-----|-------|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$  | $I_C=1mA, I_E=0$              | 100  |     |       | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$  | $I_C=30mA, I_B=0$             | 100  |     |       | V       |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$  | $I_E=3mA, I_C=0$              | 5    |     |       | V       |
| Collector cut-off current            | $I_{CBO}$      | $V_{CB}=100V, I_E=0$          |      |     | 10    | $\mu A$ |
| Collector-emitter cut-off current    | $I_{CEO}$      | $V_{CE}=50V, I_E=0$           |      |     | 10    | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$      | $V_{EB}=5V, I_C=0$            |      |     | 2     | mA      |
| DC current gain                      | $h_{FE(2)}$    | $V_{CE}=4V, I_C=4A$           | 1000 |     | 12000 |         |
|                                      | $h_{FE(3)}$    | $V_{CE}=4V, I_C=8A$           | 100  |     |       |         |
| Collector-emitter saturation voltage | $V_{CE(sat)1}$ | $I_C=4A, I_B=16mA$            |      |     | 2     | V       |
|                                      | $V_{CE(sat)2}$ | $I_C=8A, I_B=80mA$            |      |     | 4     | V       |
| Base-emitter saturation voltage      | $V_{BE(sat)}$  | $I_C=8A, I_B=80mA$            |      |     | 4.5   | V       |
| Base-emitter voltage                 | $V_{BE}$       | $V_{CE}=4V, I_C=4A$           |      |     | 2.8   | V       |
| Collector output capacitance         | $C_{ob}$       | $V_{CB}=10V, I_E=0, f=0.1MHz$ |      |     | 200   | pF      |

**Typical Characteristics**

