

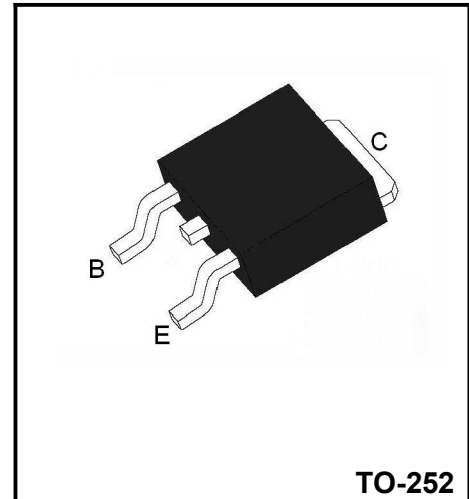
**Plastic-Encapsulate Transistors**

**Applications**

Linear and switching industrial application

**Features**

Complementary to MJD32C



**Absolute Maximum Rating (Ta=25°C)**

| Parameter                 |           | Symbol     | Value   | Unit |
|---------------------------|-----------|------------|---------|------|
| Collector-Base Voltage    |           | $BV_{CBO}$ | 100     | V    |
| Collector-Emitter Voltage |           | $BV_{CEO}$ | 100     | V    |
| Emitter-Base Voltage      |           | $BV_{EBO}$ | 5       | V    |
| Collector Current(DC)     |           | $I_C$      | 3       | A    |
| Collector peak current    |           | $I_{CM}$   | 5       | A    |
| Collector Dissipation     | Ta =25 °C | $P_C$      | 2       | W    |
|                           | Tc =25 °C |            | 40      |      |
| Junction Temperature      |           | $T_j$      | 150     | °C   |
| Storage Temperature       |           | $T_{stg}$  | -65~150 | °C   |

**Electrical Characteristics (Ta=25°C)**

| Parameter                             | Symbol         | Conditions                  | Value |     |     | Unit |
|---------------------------------------|----------------|-----------------------------|-------|-----|-----|------|
|                                       |                |                             | Min   | Typ | Max |      |
| Collector-Emitter Sustaining Voltage  | $V_{CEO(sus)}$ | $I_C = 30mA, I_B = 0$       | 100   |     |     | V    |
| Collector cut-off current             | $I_{CEO}$      | $V_{CE} = 60V, I_E = 0$     |       |     | 0.3 | mA   |
| Emitter cut-off current               | $I_{EBO}$      | $V_{EB} = 5V, I_E = 0$      |       |     | 1   | mA   |
| Collector cut-off current             | $I_{CES}$      | $V_{CE} = 100V, V_{BE} = 0$ |       |     | 0.2 | mA   |
| DC current gain*                      | $h_{FE}$       | $V_{CE} = 4V, I_C = 1A$     | 25    |     | 50  |      |
|                                       |                | $V_{CE} = 4V, I_C = 3A$     | 10    |     |     |      |
| Collector-emitter saturation voltage* | $V_{CE(sat)}$  | $I_C = 3A, I_B = 375mA$     |       |     | 1.2 | V    |
| Base-Emitter ON Voltage*              | $V_{BE(on)}$   | $V_{CE} = 4V, I_C = 3A$     |       |     | 1.8 | V    |
| Current Gain Bandwidth Product*       | $f_T$          | $V_{CE} = 10V, I_C = 500mA$ | 3.0   |     |     | MHz  |

\* Pulse Test : PW ≤ 300μs, Duty cycle ≤ 2%

Electrical Characteristics

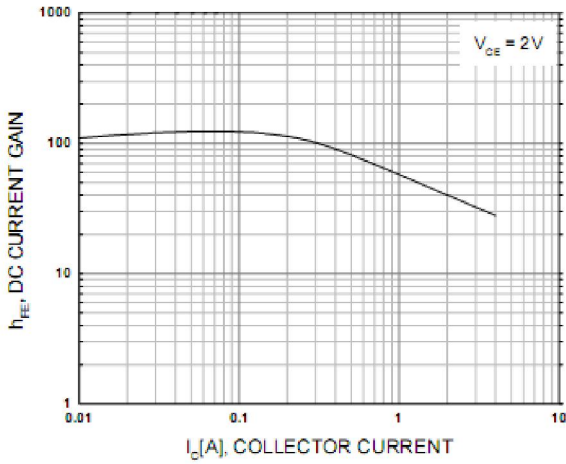


Figure 1. DC current Gain

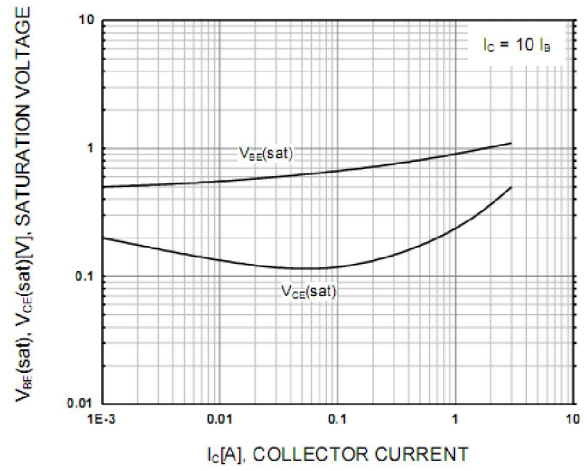


Figure 2. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

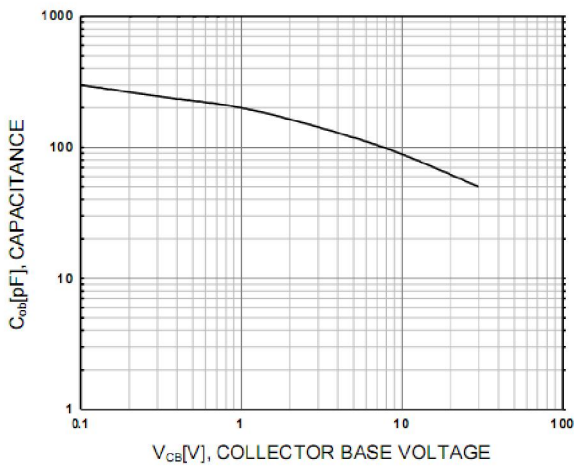


Figure 3. Collector Capacitance

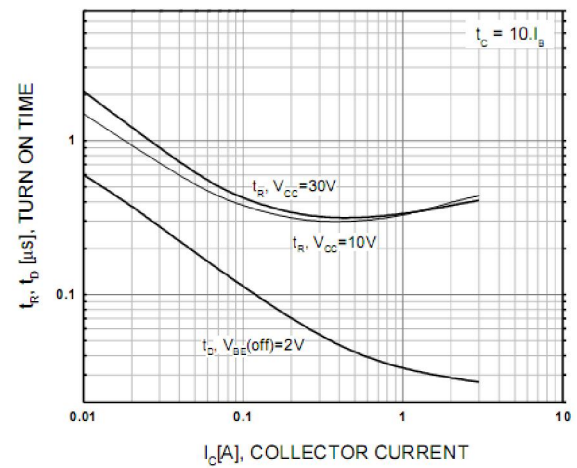


Figure 4. Turn On Time

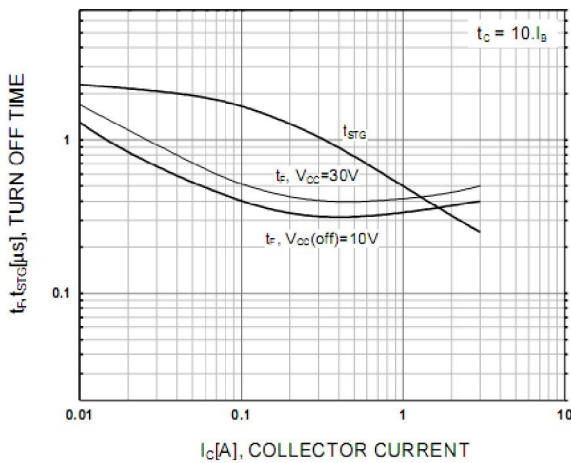


Figure 5. Turn Off Time

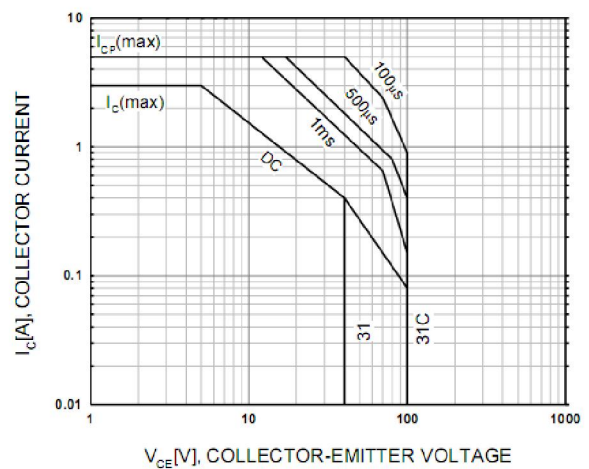
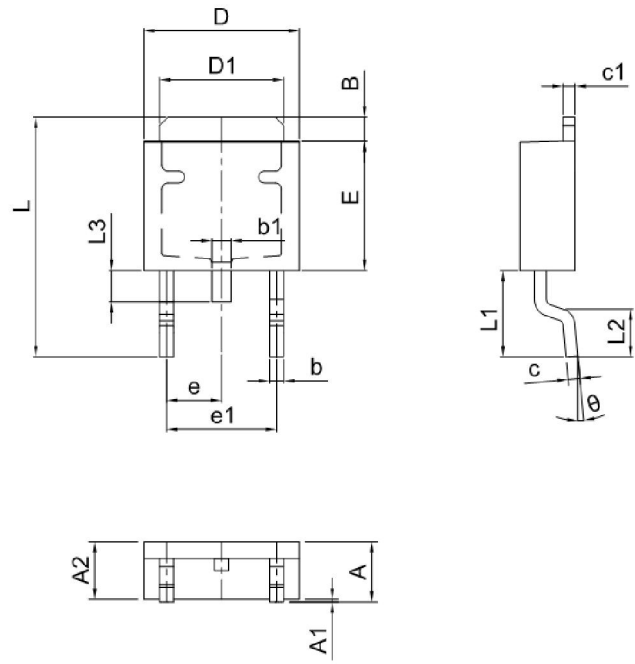


Figure 6. Safe Operating

Package Outline

TO-252



| Symbol | Millimeter |       | Inches |       |
|--------|------------|-------|--------|-------|
|        | Min.       | Max.  | Min.   | Max.  |
| A      | 2.20       | 2.50  | 0.087  | 0.098 |
| A1     | 0.00       | 0.12  | 0.000  | 0.005 |
| A2     | 2.20       | 2.40  | 0.087  | 0.094 |
| B      | 1.20       | 1.60  | 0.047  | 0.063 |
| b      | 0.50       | 0.70  | 0.020  | 0.028 |
| b1     | 0.70       | 0.90  | 0.028  | 0.035 |
| c      | 0.40       | 0.60  | 0.016  | 0.024 |
| c1     | 0.40       | 0.60  | 0.016  | 0.024 |
| D      | 6.35       | 6.65  | 0.250  | 0.262 |
| D1     | 5.20       | 5.40  | 0.205  | 0.213 |
| E      | 5.40       | 5.70  | 0.213  | 0.224 |
| e      | 2.20       | 2.40  | 0.087  | 0.094 |
| e1     | 4.40       | 4.80  | 0.173  | 0.189 |
| L      | 9.60       | 10.20 | 0.378  | 0.402 |
| L1     | 2.70       | 3.10  | 0.106  | 0.122 |
| L2     | 1.40       | 1.80  | 0.055  | 0.071 |
| L3     | 0.90       | 1.50  | 0.035  | 0.059 |

Product Specification Classification

| Part Number | Package | Marking          | Pack         |
|-------------|---------|------------------|--------------|
| MJD31C      | TO-252  | YFW MJD31C XXXXX | 2500PCS/Tape |

单击下面可查看定价，库存，交付和生命周期等信息

[>>YFW\(佑风微\)](#)