

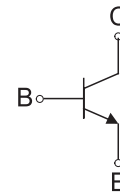


Features

- Designed for General Purpose Amplifier and Low Speed Switching Applications.
- Lead Formed for Surface Mount Applications in Plastic Sleeves (No Suffix)
- Straight Lead Version in Plastic Sleeves ("-1" Suffix)
- Lead Formed Version in 16 mm Tape and Reel ("T4" Suffix)
- Electrically Similar to Popular TIP31 and TIP32 Series



TO-252-2L
(DPAK)



Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|------------|-----------------|---------|----------|
| MJD31C | TO-252-2L(DPAK) | MJD31C | 2500 |

Maxmim Ratings (Ta=25 unless otherwise noted)

| Symbol | Parameter | Max | 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 | 3 | A |
| P _C | Collector Power Dissipation | 1.25 | W |
| T _J , T _{stg} | Operation Junction and Storage Temperature Range | -55-150 | °C |

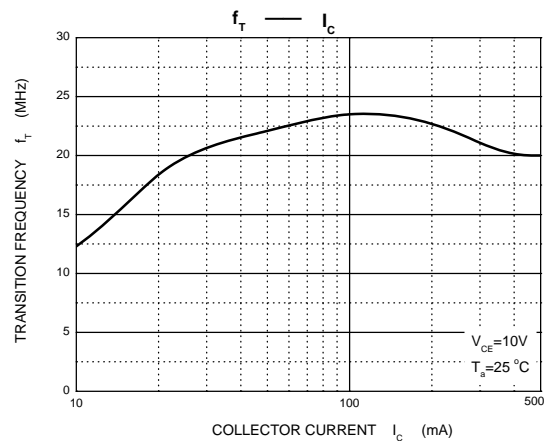
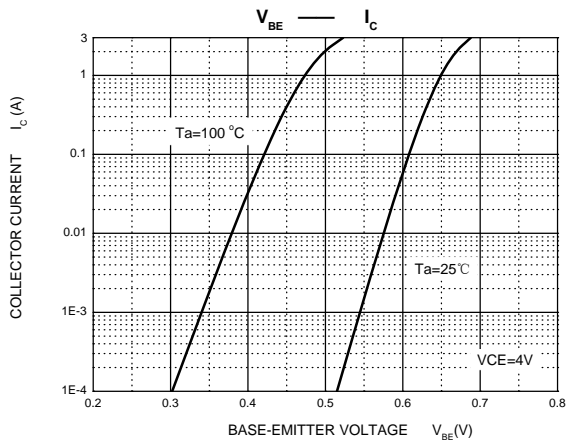
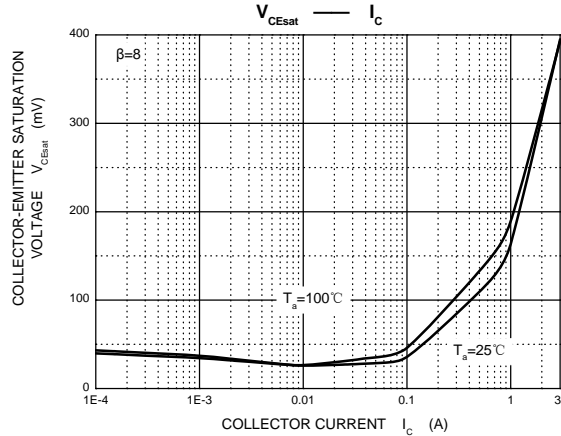
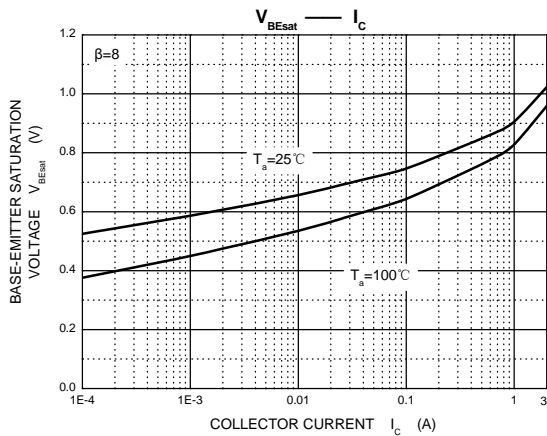
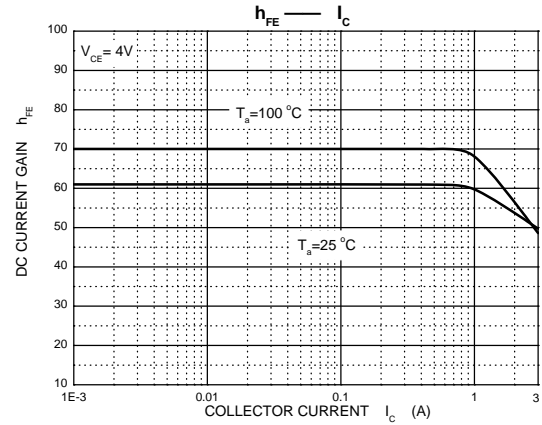
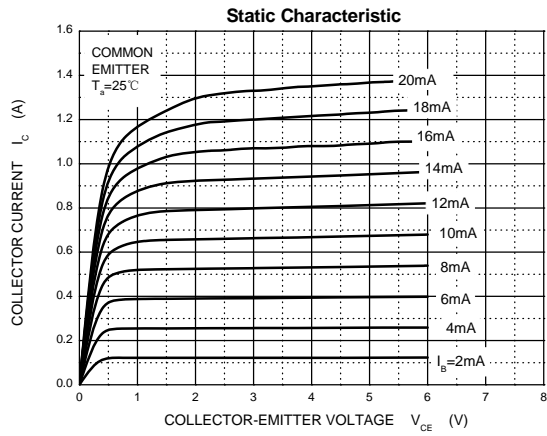
Electrcal Charcteristics (Ta=25 unless otherwise specified)

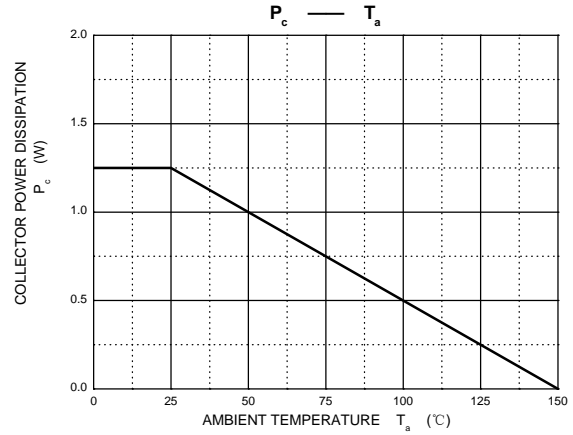
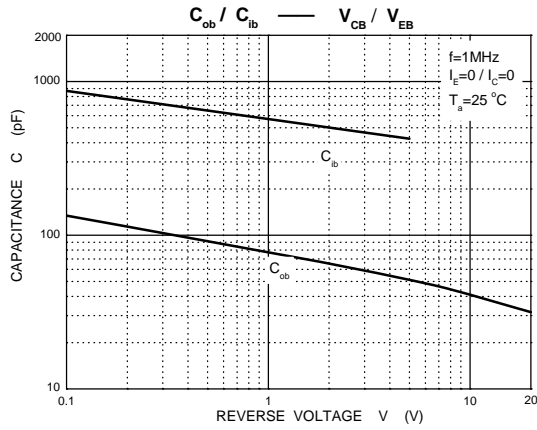
| Parameter | Symbol | Test conditions | Min | Max | Unit |
|---------------------------------------|-----------------------|--|-----|-----|------|
| Collector-base breakdown voltage | V _{(BR)CBO} | I _C = 1mA, I _E =0 | 100 | | V |
| Collector-emitter breakdown voltage * | V _{CEO(sus)} | I _C = 30mA, I _B =0 | 100 | | V |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E = 1mA, I _C =0 | 5 | | V |
| Collector cut-off current | I _{CEs} | V _{CE} =100V, V _{EB} =0 | | 20 | μA |
| Collector cut-off current | I _{CEO} | V _{CE} = 60V, I _B = 0 | | 50 | μA |
| Emitter cut-off current | I _{EBO} | V _{EB} =5V, I _C =0 | | 1 | mA |
| DC current gain | h _{FE(1)} | V _{CE} = 4V, I _C = 1A | 25 | | |
| | h _{FE(2)} | V _{CE} =4 V, I _C = 3A | 15 | 75 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =3A, I _B =0.375A | | 1.2 | V |
| Base-emitter voltage | V _{BE(on)} | V _{CE} = 4V, I _C =3A | | 1.8 | V |
| Transition frequency | f _T | V _{CE} =10V, I _C =0.5A, f _T =1KHz | 3 | | MHz |

* Pulse Test: PW≤300μs, Duty Cycles≤2%.

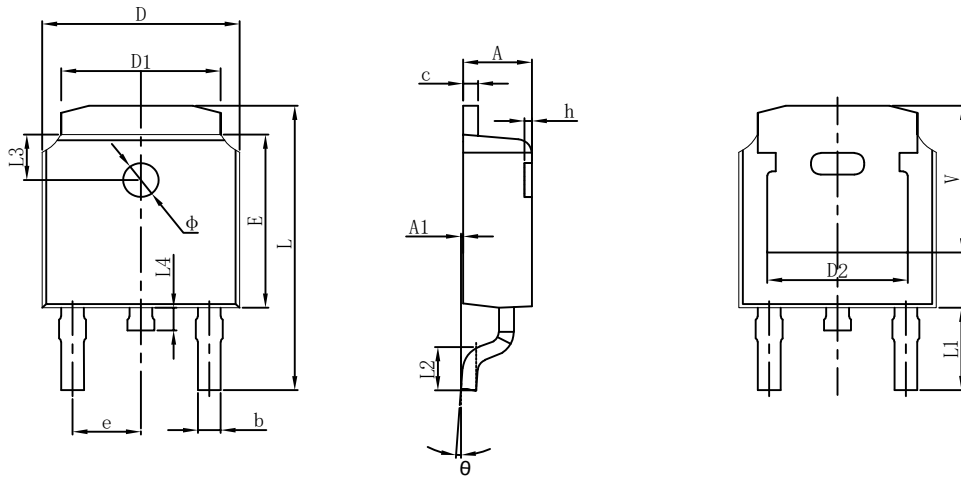


Typical Characteristics





TO-252-2L(DPAK) Package Information



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|----------|---------------------------|------------|----------------------|------------|
| | Min. | Max. | Min. | Max. |
| A | 2.200 | 2.400 | 0.087 | 0.094 |
| A1 | 0.000 | 0.127 | 0.000 | 0.005 |
| b | 0.635 | 0.770 | 0.025 | 0.030 |
| c | 0.460 | 0.580 | 0.018 | 0.023 |
| D | 6.500 | 6.700 | 0.256 | 0.264 |
| D1 | 5.100 | 5.460 | 0.201 | 0.215 |
| D2 | 4.830 REF. | | 0.190 REF. | |
| E | 6.000 | 6.200 | 0.236 | 0.244 |
| e | 2.186 | 2.386 | 0.086 | 0.094 |
| L | 9.712 | 10.312 | 0.382 | 0.406 |
| L1 | 2.900 REF. | | 0.114 REF. | |
| L2 | 1.400 | 1.700 | 0.055 | 0.067 |
| L3 | 1.600 REF. | | 0.063 REF. | |
| L4 | 0.600 | 1.000 | 0.024 | 0.039 |
| ϕ | 1.100 | 1.300 | 0.043 | 0.051 |
| θ | 0 $^\circ$ | 8 $^\circ$ | 0 $^\circ$ | 8 $^\circ$ |
| h | 0.000 | 0.300 | 0.000 | 0.012 |
| V | 5.250 REF. | | 0.207 REF. | |



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