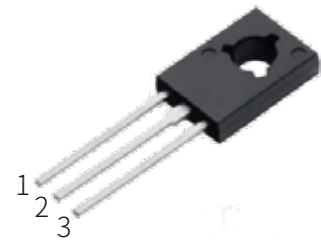


## FEATURES

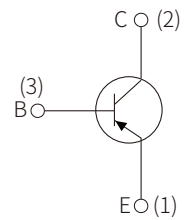
- High Voltage:  $V_{CEO} = -300V$
- Low Collector Saturation Voltage Capability



TO-126

## APPROVALS

|             |                                    |
|-------------|------------------------------------|
| <b>RoHS</b> | Compliance with 2011/65/EU         |
| <b>HF</b>   | Compliance with IEC61249-2-21:2003 |



Schematic Symbol

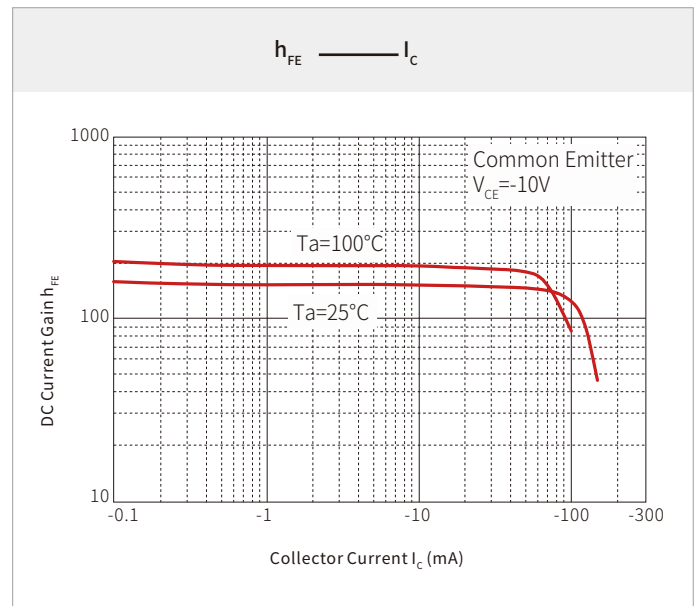
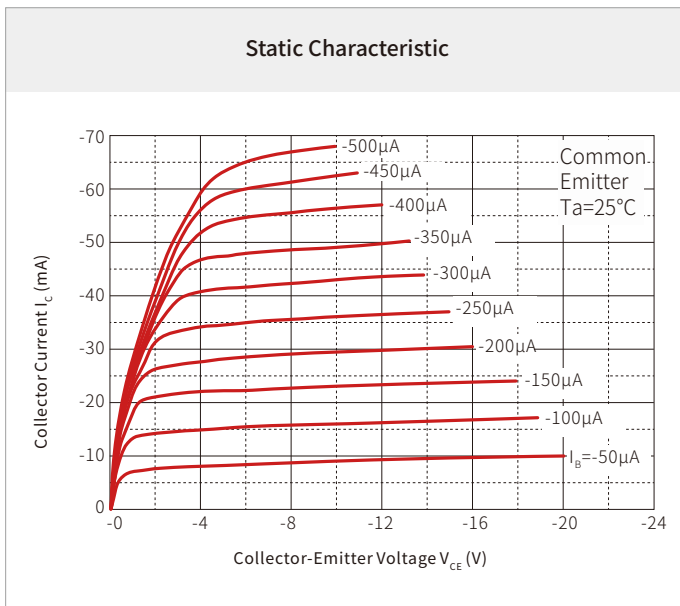
## MAXIMUM RATINGS ( $T_A = 25^\circ C$ )

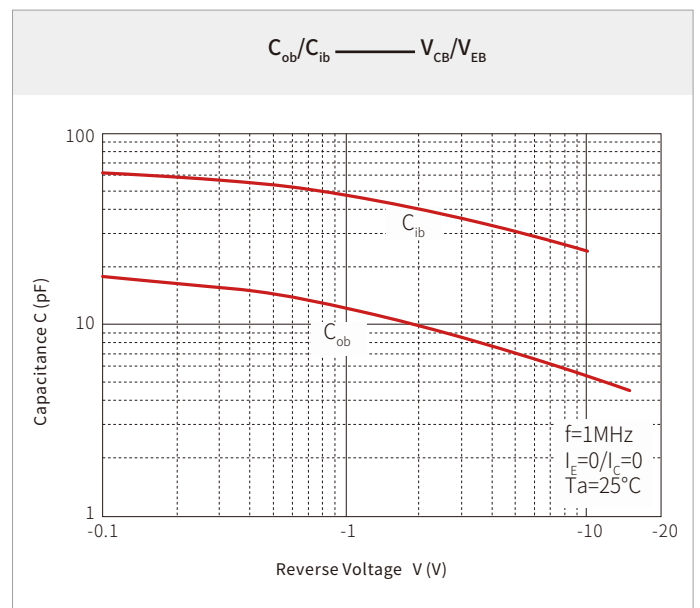
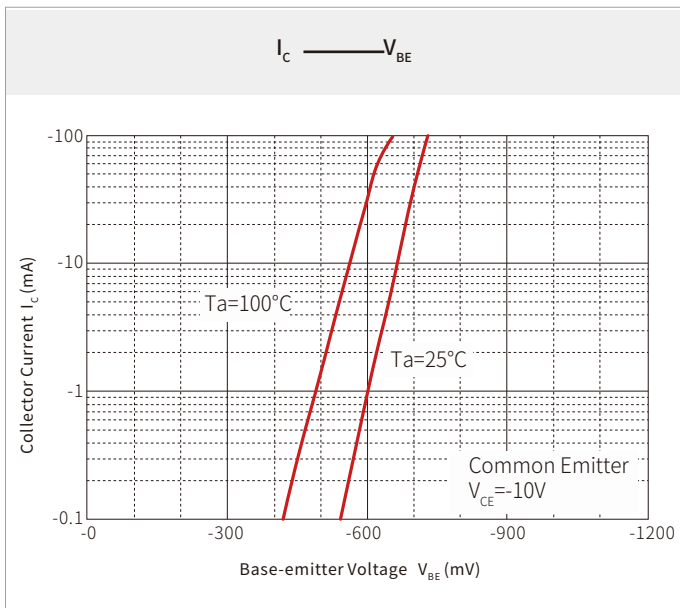
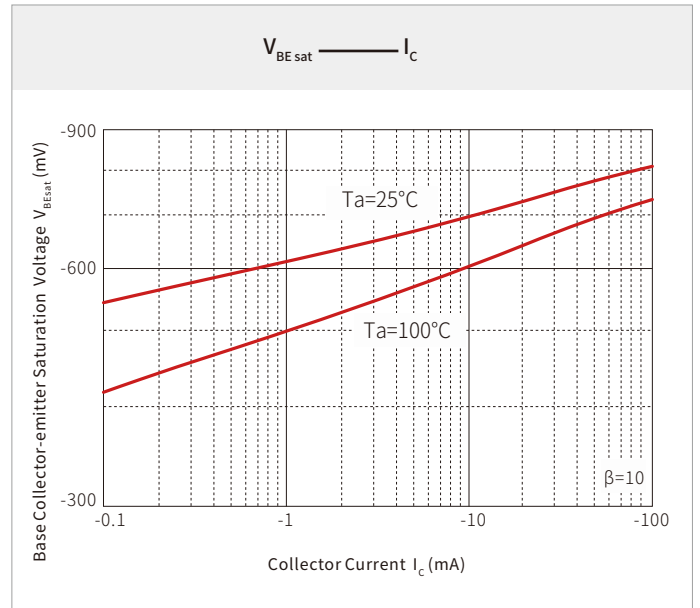
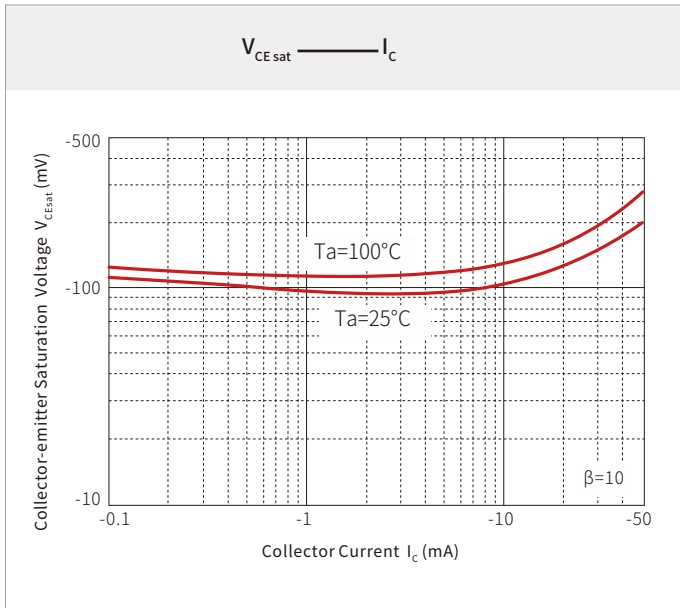
| Parameter                            | Symbol    | Value    | Unit       |
|--------------------------------------|-----------|----------|------------|
| Collector-Base Voltage               | $V_{CBO}$ | -300     | V          |
| Collector-Emitter Voltage            | $V_{CEO}$ | -300     |            |
| Emitter-Base Voltage                 | $V_{EBO}$ | -3       |            |
| Collector Current                    | $I_C$     | -0.5     | A          |
| Collector Power Dissipation          | $P_C$     | 15       | W          |
| Operating junction temperature range | $T_J$     | 150      | $^\circ C$ |
| Storage junction temperature range   | $T_{STG}$ | -55~+150 | $^\circ C$ |

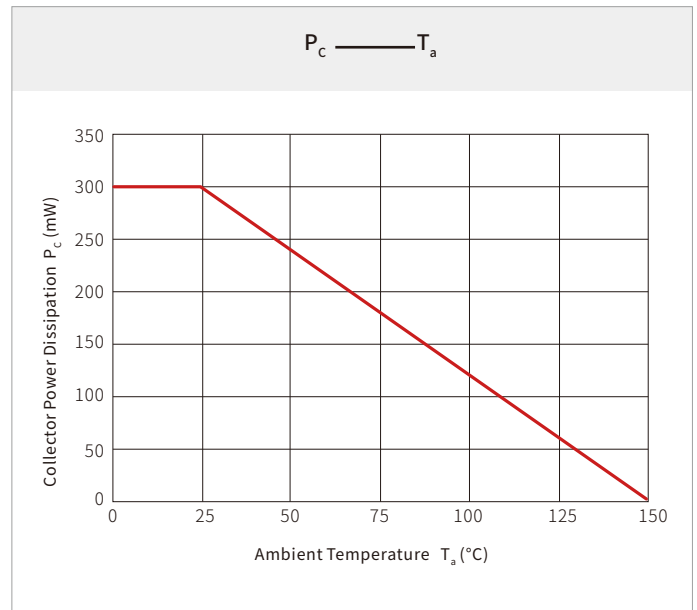
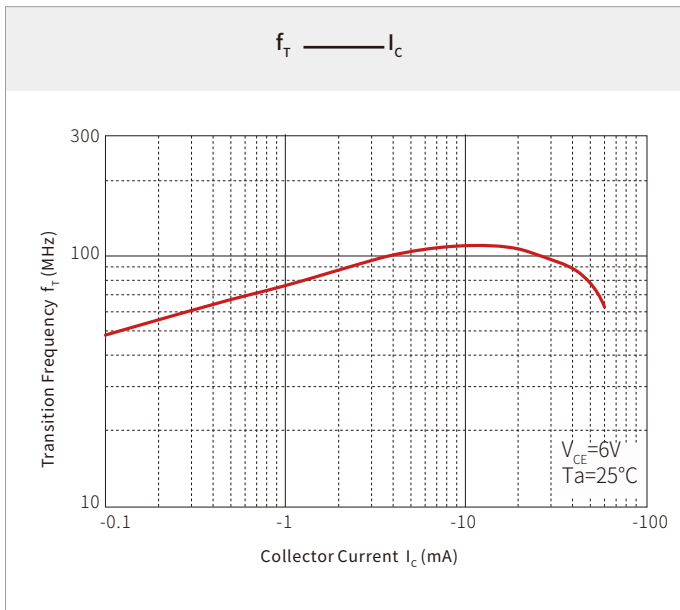
## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

| Parameter                            | Symbol               | Test Conditions                               | Min. | Typ. | Max. | Unit |
|--------------------------------------|----------------------|-----------------------------------------------|------|------|------|------|
| Collector-base breakdown voltage     | V <sub>CBO</sub>     | I <sub>C</sub> =-1mA, I <sub>E</sub> =0       | -300 |      |      | V    |
| Collector-emitter breakdown voltage  | V <sub>CEO</sub>     | I <sub>C</sub> =-10mA, I <sub>B</sub> =0      | -300 |      |      |      |
| Emitter-base breakdown voltage       | V <sub>EBO</sub>     | I <sub>E</sub> =-1mA, I <sub>C</sub> =0       | -60  |      |      |      |
| Collector cut-off current            | I <sub>CBO</sub>     | V <sub>CB</sub> =-300V, I <sub>E</sub> =0     |      |      | -100 | μA   |
| Collector Cutoff Current             | I <sub>CEO</sub>     | V <sub>CB</sub> =-150V, I <sub>B</sub> =0     |      |      | -100 |      |
| Emitter cut-off current              | I <sub>EBO</sub>     | V <sub>EB</sub> =-6V, I <sub>C</sub> =0       |      |      | -100 |      |
| DC current gain                      | h <sub>FE(1)</sub>   | V <sub>CE</sub> =-10V, I <sub>C</sub> =-50mA  | 30   |      | 240  |      |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> =-100mA, I <sub>B</sub> =-10mA |      |      | -1   | V    |
| Base-emitter voltage                 | V <sub>BE(on)</sub>  | I <sub>C</sub> =-1A, V <sub>CE</sub> =-10V    |      |      | -1.5 | V    |
| Transition frequency                 | f <sub>T</sub>       | V <sub>CE</sub> =-10V, I <sub>C</sub> =-50mA  | 10   |      |      | MHz  |

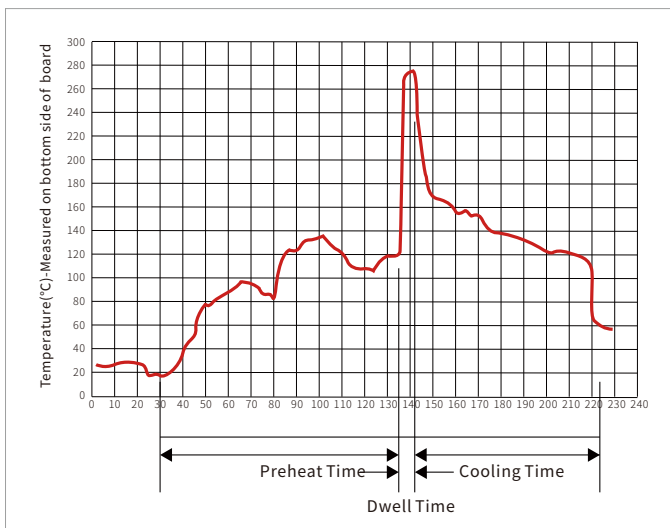
## TYPICAL CHARACTERISTICS





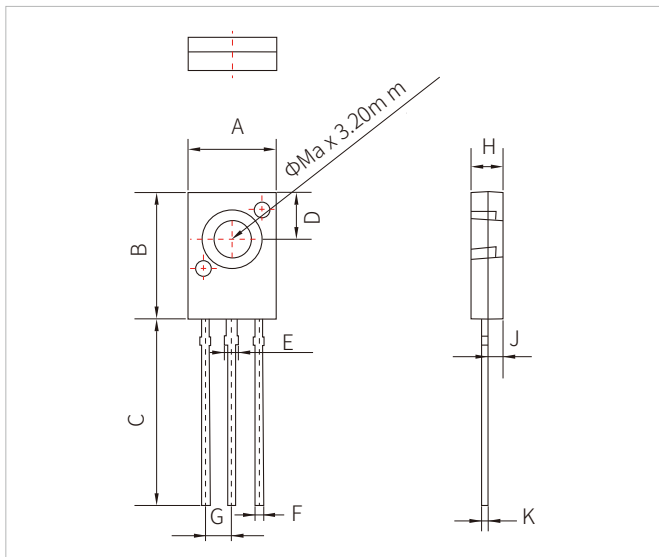


## WAVE SOLDERING



| Wave Parameter         |                  | Lead-free assembly |
|------------------------|------------------|--------------------|
| Pre Heat               | Temperature Min  | 100 $^\circ C$     |
|                        | Temperature Max  | 150 $^\circ C$     |
|                        | Time(min to max) | 60 – 180 secs      |
| Solder pot Temperature |                  | 280 $^\circ C$ Max |
| Solder Dwell Time      |                  | 2-5 seconds        |

## TO-18 PACKAGE MECHANICAL DATA



| Ref. | Dimensions  |      |      |        |       |       |
|------|-------------|------|------|--------|-------|-------|
|      | Millimeters |      |      | Inches |       |       |
|      | Min.        | Typ. | Max. | Min.   | Typ.  | Max.  |
| A    | 7.40        |      | 7.80 | 0.291  |       | 0.307 |
| B    | 10.6        |      | 11.2 | 0.417  |       | 0.441 |
| C    | 15.3        |      | 16.3 | 0.602  |       | 0.642 |
| D    | 3.90        |      | 4.10 | 0.154  |       | 0.161 |
| E    | 1.17        |      | 1.47 | 0.046  |       | 0.058 |
| F    | 0.66        |      | 0.86 | 0.026  |       | 0.034 |
| G    |             | 2.29 |      |        | 0.090 |       |
| H    | 2.50        |      | 2.90 | 0.098  |       | 0.114 |
| J    | 1.10        |      | 1.50 | 0.043  |       | 0.059 |
| K    | 0.45        |      | 0.60 | 0.018  |       | 0.024 |

## ORDERING INFORMATION

| Part Number | Component Package | Marking | QTY/Bag |
|-------------|-------------------|---------|---------|
| MJE350      | TO-18             | MJE350  | 500PCS  |

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