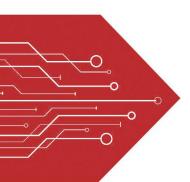
## MSKSEMI















**ESD** 

TVS

TSS

MOV

GDT

**PLED** 

# Broduct data sheet





TRANSISTOR (PNP)

## **FEATURES**

Low Speed Switching

### TO-252-2L

- 1. BASE
- 2. COLLECTOR
- 3 .EMITTER

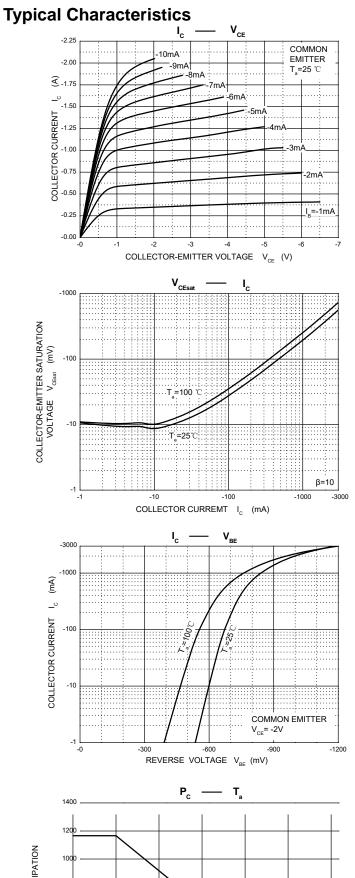
## MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

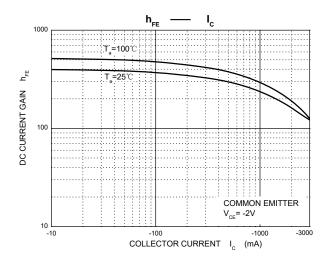
| Symbol                           | Parameter  | Value | Unit |
|----------------------------------|--|-------|------|
| V <sub>CBO</sub>                 | Collector-Base Voltage                           | -40   | V    |
| V <sub>CEO</sub>                 | Collector-Emitter Voltage                        | -30   | V    |
| V <sub>EBO</sub>                 | Emitter-Base Voltage                             | -6    | V    |
| Ic                               | Collector Current -Continuous                    | -3    | Α    |
| Pc                               | Collector Power Dissipation                      | 1.25  | W    |
| R <sub>OJA</sub>                 | Thermal Resistance, junction to Ambient          | 100   | °C/W |
| T <sub>J</sub> ,T <sub>stg</sub> | Operation Junction and Storage Temperature Range |       | ℃    |

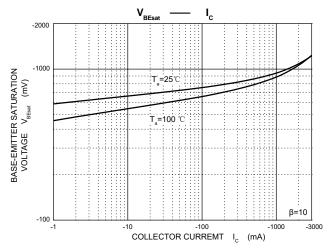
## **ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)**

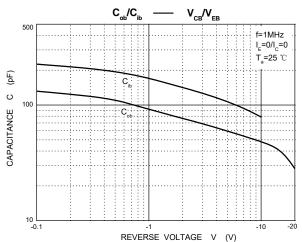
| Parameter                            | Symbol               | Test conditions                             | Min | Тур | Max         | Unit |
|--------------------------------------|----------------------|---|-----|-----|-------------|------|
| Collector-base breakdown voltage     | V <sub>(BR)CBO</sub> | I <sub>C</sub> =-100μA ,I <sub>E</sub> =0   | -40 |     |             | V    |
| Collector-emitter breakdown voltage  | V <sub>(BR)CEO</sub> | I <sub>C</sub> = -10mA , I <sub>B</sub> =0  | -30 |     |             | V    |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$        | I <sub>E</sub> = -100μA,I <sub>C</sub> =0   | -6  |     |             | V    |
| Collector cut-off current            | I <sub>CBO</sub>     | V <sub>CB</sub> = -40V, I <sub>E</sub> =0   |     |     | -1          | μA   |
| Collector cut-off current            | I <sub>CEO</sub>     | V <sub>CE</sub> =-30V, I <sub>B</sub> =0    |     |     | -10         | μA   |
| Emitter cut-off current              | I <sub>EBO</sub>     | V <sub>EB</sub> =-6V, I <sub>C</sub> =0     |     |     | -1          | μA   |
| DC current gain                      | h <sub>FE</sub>      | V <sub>CE</sub> = -2V, I <sub>C</sub> = -1A | 60  |     | 400         |      |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> =-2A, I <sub>B</sub> = -0.2A |     |     | <b>-</b> 0. | V    |
| Base-emitter saturation voltage      | V <sub>BE(sat)</sub> | I <sub>C</sub> =-2A, I <sub>B</sub> = -0.2A |     |     | -1.         | V    |
| Transition frequency                 | f⊤                   | $V_{CE}$ = -5V, $I_{C}$ =-0.1A $f$ =10MHz   | 50  | 8   |             | MHz  |

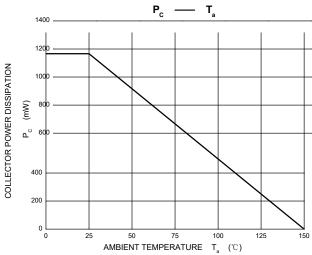






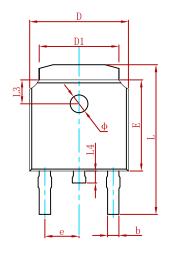


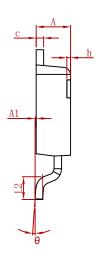


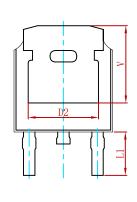




## PACKAGE MECHANICAL DATA

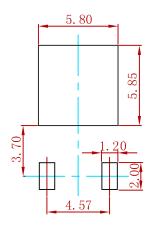






| Cumbal | Dimensions In Millimeters |        | Dimensions In Inches |       |  |
|--------|---------------------------|--------|----------------------|-------|--|
| Symbol | Min.                      | Max.   | Min.                 | Max.  |  |
| Α      | 2.200                     | 2.400  | 0.087                | 0.094 |  |
| A1     | 0.000                     | 0.127  | 0.000                | 0.005 |  |
| b      | 0.635                     | 0.770  | 0.025                | 0.030 |  |
| С      | 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.  |  |
| Е      | 6.000                     | 6.200  | 0.236                | 0.244 |  |
| е      | 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 |  |
| Ф      | 1.100                     | 1.300  | 0.043                | 0.051 |  |
| θ      | 0°                        | 8°     | 0°                   | 8°    |  |
| h      | 0.000                     | 0.300  | 0.000                | 0.012 |  |
| V      | 5.250                     | REF.   | 0.207                | REF.  |  |

## **Suggested Pad Layout**



## Note:

- 1.Controlling dimension:in millimeters.
- 2.General tolerance:± 0.05mm.
- 3. The pad layout is for reference purposes only.

## **REEL SPECIFICATION**

| P/N    | PKG    | QTY  |
|--------|--------|------|
| 2SB772 | TO-252 | 2500 |



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