



Micro Commercial Components



Micro Commercial Components  
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**2SB772-R**  
**2SB772-O**  
**2SB772-Y**  
**2SB772-GR**

## Features

- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Capable of 1.25Watts of Power Dissipation.
- Collector-current 3.0A
- Collector-base Voltage 40V
- Operating and storage junction temperature range: -55°C to +150°C

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Min | Max | Units |
|--------|-----------|-----|-----|-------|
|--------|-----------|-----|-----|-------|

### OFF CHARACTERISTICS

|               |  |     |     |                 |
|---------------|--|-----|-----|-----------------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage<br>( $I_C=10\text{mAdc}$ , $I_B=0$ ) | 30  | --- | Vdc             |
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage<br>( $I_C=100\mu\text{Adc}$ , $I_E=0$ ) | 40  | --- | Vdc             |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage<br>( $I_E=100\mu\text{Adc}$ , $I_C=0$ )   | 5.0 | --- | Vdc             |
| $I_{CBO}$     | Collector Cutoff Current<br>( $V_{CB}=40\text{Vdc}$ , $I_E=0$ )          | --- | 1.0 | $\mu\text{Adc}$ |
| $I_{CEO}$     | Collector Cutoff Current<br>( $V_{CE}=30\text{Vdc}$ , $I_B=0$ )          | --- | 1.0 | $\mu\text{Adc}$ |
| $I_{EBO}$     | Emitter Cutoff Current<br>( $V_{EB}=6.0\text{Vdc}$ , $I_C=0$ )           | --- | 1.0 | $\mu\text{Adc}$ |

### ON CHARACTERISTICS

|               |   |     |     |     |
|---------------|---|-----|-----|-----|
| $h_{FE(1)}$   | DC Current Gain<br>( $I_C=1.0\text{Adc}$ , $V_{CE}=2.0\text{Vdc}$ )                   | 60  | 400 | --- |
| $h_{FE(2)}$   | DC Current Gain<br>( $I_C=100\text{mAdc}$ , $V_{CE}=2.0\text{Vdc}$ )                  | 32  | --- | --- |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage<br>( $I_C=2.0\text{Adc}$ , $I_B=0.2\text{Adc}$ ) | --- | 0.5 | Vdc |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage<br>( $I_C=2.0\text{Adc}$ , $I_B=0.2\text{Adc}$ )      | --- | 2.0 | Vdc |

### SMALL-SIGNAL CHARACTERISTICS

|       |   |    |     |     |
|-------|---|----|-----|-----|
| $f_T$ | Transistor Frequency<br>( $I_C=0.1\text{Adc}$ , $V_{CE}=5.0\text{Vdc}$ , $f=10\text{MHz}$ ) | 50 | --- | MHz |
|-------|---|----|-----|-----|

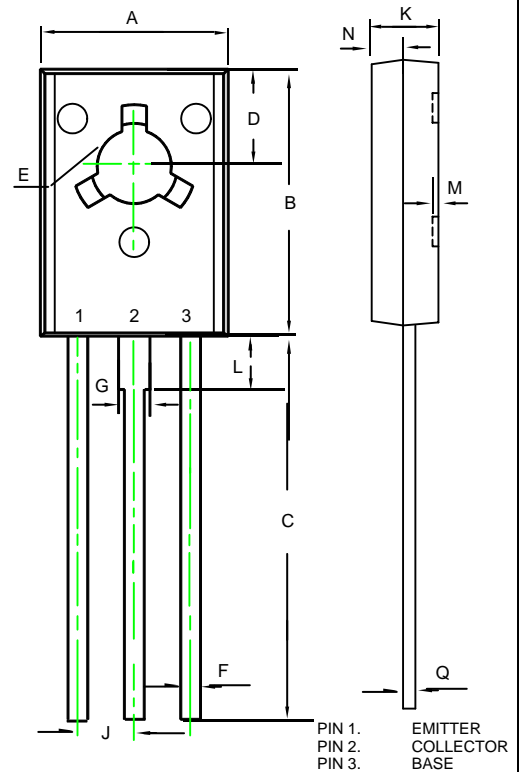
### CLASSIFICATION OF $h_{FE(1)}$

| Rank  | R      | O       | Y       | GR      |
|-------|--------|---------|---------|---------|
| Range | 60-120 | 100-200 | 160-320 | 200-400 |

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

## PNP Silicon Plastic-Encapsulate Transistor

### TO-18



#### DIMENSIONS

| DIM | INCHES   |       | MM       |       | NOTE |
|-----|----------|-------|----------|-------|------|
|     | MIN      | MAX   | MIN      | MAX   |      |
| A   | 0.291    | 0.307 | 7.40     | 7.80  |      |
| B   | 0.417    | 0.433 | 10.60    | 11.00 |      |
| C   | 0.602    | 0.618 | 15.30    | 15.70 |      |
| D   | 0.154    | 0.161 | 3.90     | 4.10  |      |
| E   | 0.118    | 0.126 | 3.00     | 3.20  |      |
| F   | 0.026    | 0.034 | 0.66     | 0.86  |      |
| G   | 0.046    | 0.054 | 1.17     | 1.37  |      |
| J   | 0.090TYP |       | 2.290TYP |       |      |
| K   | 0.098    | 0.114 | 2.50     | 2.90  |      |
| L   | 0.083    | 0.091 | 2.10     | 2.30  |      |
| M   | 0.000    | 0.012 | 0.00     | 0.30  |      |
| N   | 0.043    | 0.059 | 1.10     | 1.50  |      |
| Q   | 0.018    | 0.024 | 0.45     | 0.60  |      |



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## Ordering Information :

| Device         | Packing         |
|----------------|-----------------|
| Part Number-BP | Bulk; 1Kpcs/Box |

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