

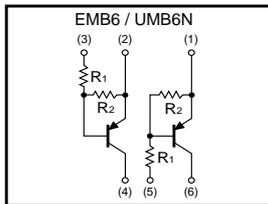
# General purpose (dual digital transistors)

## EMB6 / UMB6N

●Feature

1) Two DTA144E chips in a EMT or UMT package.

●Equivalent circuit



●Package, marking, and packaging specifications

|                              |      |       |
|------------------------------|------|-------|
| Type                         | EMB6 | UMB6N |
| Package                      | EMT6 | UMT6  |
| Marking                      | B6   | B6    |
| Code                         | T2R  | TR    |
| Basic ordering unit (pieces) | 8000 | 3000  |

●Absolute maximum ratings (Ta=25°C)

| Parameter            | Symbol           | Limits     | Unit  |
|----------------------|------------------|------------|-------|
| Supply voltage       | V <sub>CC</sub>  | -50        | V     |
| Input voltage        | V <sub>IN</sub>  | -40        | V     |
|                      |                  | 10         |       |
| Output current       | I <sub>O</sub>   | 50         | mA    |
| Power dissipation    | P <sub>d</sub>   | 150(TOTAL) | mW *1 |
| Junction temperature | T <sub>J</sub>   | 150        | °C    |
| Storage temperature  | T <sub>stg</sub> | -55~+150   | °C    |

\*1 120mW per element must not be exceeded.

●Electrical characteristics (Ta=25°C)

| Parameter            | Symbol                         | Min. | Typ. | Max.  | Unit | Conditions   |
|----------------------|--------------------------------|------|------|-------|------|--|
| Input voltage        | V <sub>I (off)</sub>           | -    | -    | -0.5  | V    | V <sub>CC</sub> =-5V, I <sub>O</sub> =-100μA           |
|                      | V <sub>I (on)</sub>            | -3.0 | -    | -     |      | V <sub>O</sub> =-0.3V, I <sub>O</sub> =-2mA            |
| Output voltage       | V <sub>O (on)</sub>            | -    | -0.1 | -0.3  | V    | I <sub>O</sub> =-10mA, I <sub>E</sub> =-0.5mA          |
| Input current        | I <sub>I</sub>                 | -    | -    | -0.18 | mA   | V <sub>I</sub> =-5V                                    |
| Output current       | I <sub>O (off)</sub>           | -    | -    | -0.5  | μA   | V <sub>CC</sub> =-50V, V <sub>I</sub> =0V              |
| DC current gain      | G <sub>I</sub>                 | 68   | -    | -     | -    | I <sub>O</sub> =-5mA, V <sub>O</sub> =-5V              |
| Input resistance     | R <sub>I</sub>                 | 32.9 | 47   | 61.1  | kΩ   | -  |
| Resistance ratio     | R <sub>2</sub> /R <sub>1</sub> | 0.8  | 1.0  | 1.2   | -    | -  |
| Transition frequency | f <sub>r</sub>                 | -    | 250  | -     | MHz  | V <sub>CE</sub> =-10V, I <sub>E</sub> =5mA, f=100MHz * |

\*Transition frequency of the device.

●External dimensions (Units : mm)

