

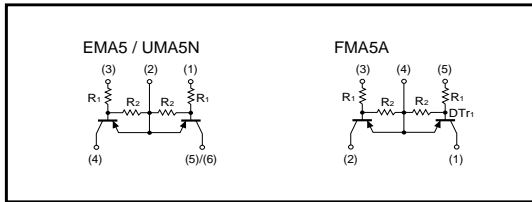
# Emitter common (dual digital transistors)

## EMA5 / UMA5N / FMA5A

●Features

1) Two DTA123Js in a EMT or UMT or SMT package.

●Equivalent circuit



●Packaging, marking, and packaging specifications

| Type                         | EMA5 | UMA5N | FMA5A |
|------------------------------|------|-------|-------|
| Package                      | EMT5 | UMT5  | SMT5  |
| Marking                      | A5   | A5    | A5    |
| Code                         | T2R  | TR    | T148  |
| Basic ordering unit (pieces) | 8000 | 3000  | 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>  | -12         | V    |
|                      |                  | 5           |      |
| Output current       | I <sub>O</sub>   | -100        | mA   |
| Power dissipation    | Pd               | 150 (TOTAL) | mW * |
|                      |                  | 300 (TOTAL) |      |
| Junction temperature | T <sub>J</sub>   | 150         | °C   |
| Storage temperature  | T <sub>stg</sub> | -55~+150    | °C   |

\* Do not exceed 120m per element for the UMA5N.  
Do not exceed 200mW per element for the FMA5A.

●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<br>V <sub>O</sub> =-0.3V, I <sub>O</sub> =-5mA |
|                      | V <sub>I (on)</sub>             | -1.1 | -    | -    |      |   |
| Output voltage       | V <sub>O (on)</sub>             | -    | -0.1 | -0.3 | V    | I <sub>O</sub> /I <sub>I</sub> =-5mA/0.25mA   |
| Input current        | I <sub>I</sub>                  | -    | -    | -3.6 | 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>                  | 80   | -    | -    | -    | V <sub>O</sub> =-5V, I <sub>O</sub> =-10mA  |
| Input resistance     | R <sub>1</sub>                  | 1.54 | 2.2  | 2.86 | kΩ   | -   |
| Transition frequency | f <sub>T</sub>                  | -    | 250  | -    | MHz  | V <sub>CE</sub> =-10V, I <sub>E</sub> =5mA, f=100MHz  |
| Resistance ratio     | R <sub>2</sub> / R <sub>1</sub> | 17   | 21   | 26   | -    | -   |

\*Transition frequency of the device.

●External dimensions (Units : mm)

