

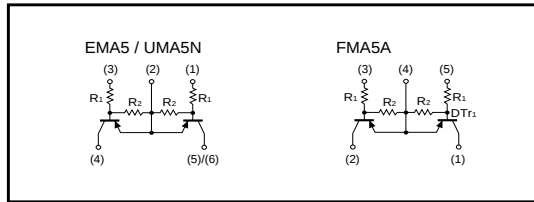
# Emitter common (dual digital transistors)

## 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<br>5                   | V    |
| Output current       | I <sub>O</sub>   | -100                       | mA   |
| Power dissipation    | P <sub>d</sub>   | 150 (TOTAL)<br>300 (TOTAL) | mW * |
| 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</sub> (off)            | —    | —    | -0.5 | V    | V <sub>CC</sub> =-5V, I <sub>O</sub> =-100μA         |
|                      | V <sub>I</sub> (on)             | -1.1 | —    | —    | V    | V <sub>O</sub> =-0.3V, I <sub>O</sub> =-5mA          |
| Output voltage       | V <sub>O</sub> (on)             | —    | -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</sub> (off)            | —    | —    | -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)

