

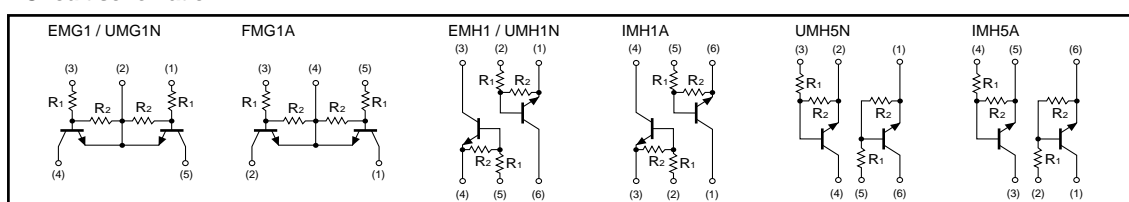
# General purpose (dual digital transistors)

## EMG1 / EMH1 / UMG1N / UMH1N / UMH5N / FMG1A / IMH1A / IMH5A

### ●Features

- 1) Two DTC124E chips in a EMT or UMT or SMT package.

### ●Circuit schematic



### ●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<br>-10  | V     |
| Output current       |                                     | I <sub>O</sub>   | 30         | mA    |
| Power dissipation    | EMG1 / EMH1 / UMG1N / UMH1N / UMG5N | Pd               | 150(TOTAL) | mW *1 |
|                      | FMG1A / IMH1A / IMH5A               |                  | 300(TOTAL) |       |
| 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.  
\*2 200mW 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    | -    | -    |      | V <sub>O</sub> =0.2V, I <sub>O</sub> =5mA   |
| Output voltage   | V <sub>O (on)</sub>             | -    | 0.1  | 0.3  | V    | I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA |
| Input current    | I <sub>I</sub>                  | -    | -    | 0.36 | 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>                  | 56   | -    | -    | -    | V <sub>O</sub> =5V, I <sub>O</sub> =5mA     |
| Input resistance | R <sub>1</sub>                  | 15.4 | 22   | 28.6 | kΩ   | -   |
| Resistance ratio | R <sub>2</sub> / R <sub>1</sub> | 0.8  | 1    | 1.2  | -    | -   |

### ●Package, marking, and packaging specifications

| Type                         | EMG1 | EMH1 | UMG1N | UMH1N | UMH5N | FMG1A | IMH1A | IMH5A |
|------------------------------|------|------|-------|-------|-------|-------|-------|-------|
| Package                      | EMT5 | EMT5 | UMT5  | UMT6  | UMT6  | SMT5  | SMT6  | SMT6  |
| Marking                      | G1   | H1   | G1    | H1    | H5    | G1    | H1    | H5    |
| Code                         | T2R  | T2R  | TR    | TN    | TR    | T148  | T110  | T110  |
| Basic ordering unit (pieces) | 8000 | 8000 | 3000  | 3000  | 3000  | 3000  | 3000  | 3000  |

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## Transistors

### External dimensions (Units : mm)

