

Transistors

General purpose (dual digital transistors)

UMA1N / UMB1N / UMB5N / FMA1A / IMB1A / IMB5A

●Features

- 1) Two DTA124E chips in a UMT or SMT package.

●Absolute maximum ratings (Ta = 25°C)

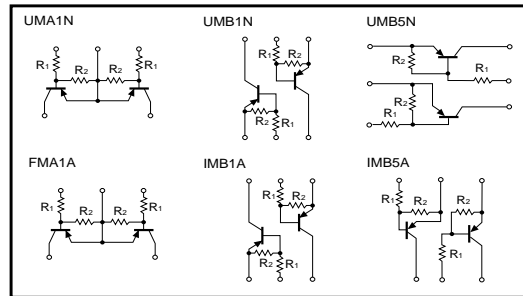
| Parameter | Symbol | Limits | Unit |
|----------------------|------------------|------------|-------|
| Supply voltage | V _{cc} | -50 | V |
| Input voltage | V _{in} | -40 | V |
| | | 10 | |
| Output current | I _o | -100 | mA |
| Power dissipation | Pd | 150(TOTAL) | mW *1 |
| | | 300(TOTAL) | |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | T _{stg} | -55 ~ +150 | °C |

*1 120mW per element must not be exceeded.
*2 200mW per element must not be exceeded.

●Package, marking, and packaging specifications

| Part No. | UMA1N | UMB1N | UMB5N | FMA1A | IMB1A | IMB5A |
|------------------------------|-------|-------|-------|-------|-------|-------|
| Package | UMT5 | UMT6 | UMT6 | SMT5 | SMT6 | SMT6 |
| Marking | A1 | B1 | B5 | A1 | B1 | B5 |
| Code | TR | TN | TR | T148 | T110 | T110 |
| Basic ordering unit (pieces) | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 |

●Circuit schematic



●Electrical characteristics (Ta = 25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|------------------|--------------------------------|------|------|-------|------|--|
| Input voltage | V _{ic(off)} | - | - | -0.5 | V | V _{cc} = -5V, I _o = -100μA |
| | V _{ic(on)} | -3 | - | - | V | V _o = -0.2V, I _o = -5mA |
| Output voltage | V _{o(on)} | - | -0.1 | -0.3 | V | I _o /I _c = -0.5mA/-10mA |
| Input current | I _i | - | - | -0.36 | mA | V _i = -5V |
| Output current | I _{o(off)} | - | - | -0.5 | μA | V _{cc} = -50V, V _i = 0V |
| DC current gain | G _i | 56 | - | - | - | V _o = -5V, I _o = -5mA |
| Input resistance | R _i | 15.4 | 22 | 28.6 | kΩ | - |
| Resistance ratio | R _z /R _i | 0.8 | 1 | 1.2 | - | - |

●External dimensions (Units : mm)

