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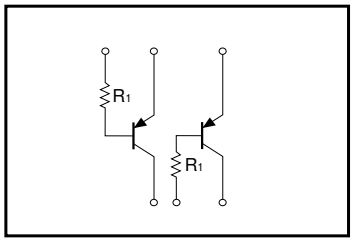
# General purpose (dual digital transistors)

## IMB7A

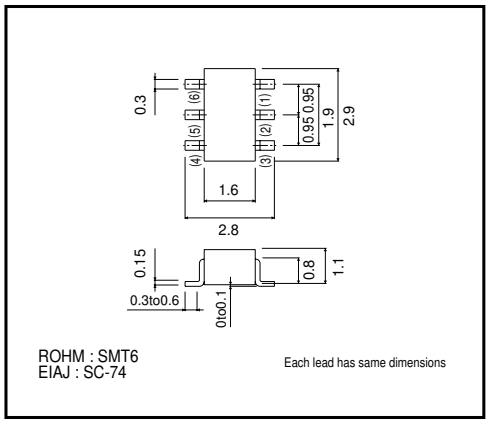
●**Features**

1) Two DTA143T chips in a SMT package.

●**Circuit diagram**




●**External dimensions** (Unit : mm)




●**Absolute maximum ratings** (Ta=25°C)

| Parameter | Symbol | Limits | Unit | |
|---|---|---|---|---|
| Collector-base voltage | $V_{CBO}$ | −50 | V | |
| Collector-emitter voltage | $V_{CEO}$ | −50 | V | |
| Emitter-base voltage | $V_{EBO}$ | −5 | V | |
| Collector current | $I_C$ | −100 | mA | |
| Collector power dissipation | Pc | 300(TOTAL) | mW | * |
| Junction temperature | Tj | 150 | °C | |
| Storage temperature | Tstg | −55 to +150 | °C | |

*200mW per element must not be exceeded.

●**Package, marking, and packaging specifications**

| Type | IMB7A |
|---|---|
| Package | SMT6 |
| Marking | B7 |
| Code | T108 |
| Basic ordering unit (pieces) | 3000 |

●**Electrical characteristics** (Ta=25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|---|---|---|---|---|---|---|
| Collector-base breakdown voltage | $BV_{CBO}$ | –50 | – | – | V | $I_C$= –50μA |
| Collector-emitter breakdown voltage | $BV_{CEO}$ | –50 | – | – | V | $I_C$= –1mA |
| Emitter-base breakdown voltage | $BV_{EBO}$ | –5 | – | – | V | $I_E$= –50μA |
| Collector cutoff current | $I_{CBO}$ | – | – | –0.5 | μA | $V_{CB}$= –50V |
| Emitter cutoff current | $I_{EBO}$ | – | – | –0.5 | μA | $V_{EB}$= –4V |
| DC current transfer ratio | $h_{FE}$ | 100 | 250 | 600 | – | $V_{CE}/I_C$= –5V/–1mA |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | – | – | –0.3 | V | $I_C/I_B$= –5mA /–0.25mA |
| Input resistance | $R_1$ | 3.29 | 4.7 | 6.11 | kΩ | – |

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