

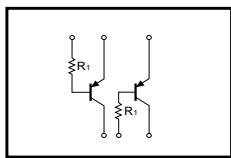
General purpose (dual digital transistors)

IMB7A

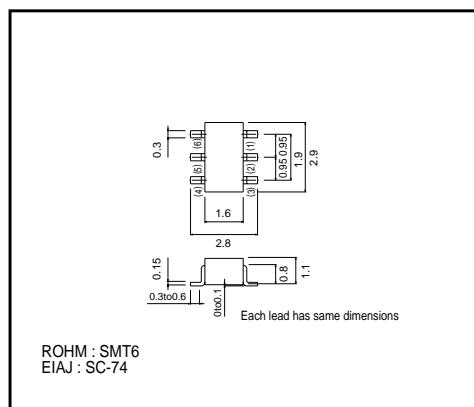
●Features

- 1) Two DTA143T chips in a SMT package.

●Circuit diagram



●External dimensions (Units : mm)



●Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

| 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 | P_C | 300(TOTAL) | mW * |
| Junction temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{STG} | -55~+150 | $^\circ\text{C}$ |

* 200mW per element must not be exceeded.

●Package, marking, and packaging specifications

| Type | IMB7A |
|------------------------------|-------|
| Package | SMT6 |
| Marking | B7 |
| Code | T110 |
| Basic ordering unit (pieces) | 3000 |

●Electrical characteristics ($T_a = 25^\circ\text{C}$)

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