

IMD14 General purpose (dual digital transistors)

IMD14

●Features

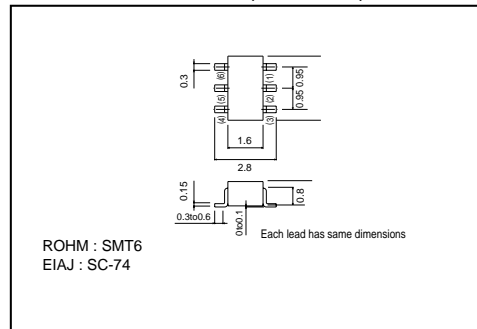
- 1) Two 500 mA digital transistor chips in a SMT package.
- 2) The drive transistors are independent, eliminating interference.

●Absolute maximum ratings (Ta = 25°C)

| Parameter | Symbol | Limits | Unit |
|----------------------|------------------|-------------|------|
| Supply voltage | V _{CC} | 50 | V |
| Input voltage | V _{IN} | 5 | V |
| | | -5 | |
| Output current | I _C | 500 | mA |
| Power dissipation | P _d | 300 (TOTAL) | mW * |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | T _{stg} | -55~+150 | °C |

* 200mW per element must not be exceeded. PNP type negative symbols have been omitted.

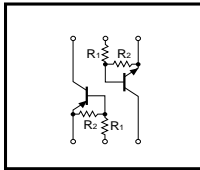
●External dimensions (Units : mm)



●Packaging specifications and hFE

| | |
|------------------------------|-------|
| Part No. | IMD14 |
| Package | SMT6 |
| Marking | D14 |
| Code | T108 |
| Basic ordering unit (pieces) | 3000 |

●Circuit diagram



●Electrical characteristics (Ta = 25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|----------------------|--------------------------------|------|------|------|------|---|
| Input voltage | V _{I (off)} | - | - | 0.3 | V | V _{CC} =5V, I _O =100μA V _O =0.3V, I _O =1mA |
| | V _{I (on)} | 1.1 | - | - | | |
| Output voltage | V _{O (on)} | - | - | 0.3 | V | I _O /I _I =100mA/5mA |
| Input current | I _I | - | - | 17 | mA | V _I =3V |
| Output current | I _{O (off)} | - | - | 0.5 | μA | V _{CC} =50V, V _I =0V |
| DC current gain | G _I *1 | 82 | - | - | - | I _O =100mA, V _O =5V |
| Transition frequency | f _T *2 | - | 250 | - | MHz | V _{CE} =10V, I _E =-50mA, f=100MHz |
| Input resistance | R _I | 154 | 220 | 286 | Ω | - |
| Resistance ratio | R ₂ /R ₁ | 36.3 | 45.5 | 54.6 | - | - |

*1 Measured using pulse current
PNP type negative symbols have been omitted.

*2 Transition frequency of the device