

Transistors

IMD14 General purpose (dual digital transistors)

IMD14

●Features

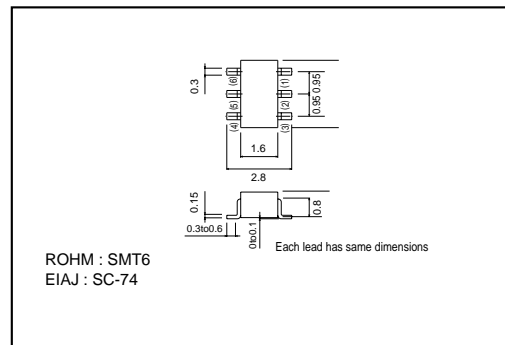
- 1) Two 500 mA digital transistor chips in a SMT package.
- 2) The drive transistors are independent, eliminating interference.

●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.

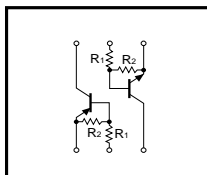
●External dimensions (Units : mm)



●Package, marking, and packaging specifications

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

●Equivalent circuit



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V _{I (off)}	-	-	0.3	V	V _{CC} =5V , I _C =100μA
	V _{I (on)}	1.1	-	-		V _O =0.3V , I _C =50mA
Output voltage	V _{O (on)}	-	-	0.3	V	I _C /I _E =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 _C =100mA , V _O =5V *1
Transition frequency	f _T *2	-	250	-	MHz	V _{CE} =10V , I _E =-50mA , f=100MHz *2
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 *2 Transition frequency of the device
PNP type negative symbols have been omitted.