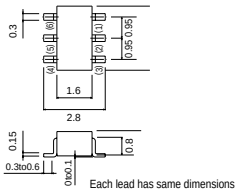
IMD14 General purpose (dual digital transistors)

IMD14

●Features

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

●External dimensions (Units : mm)



ROHM : SMT6
EIAJ : SC-74

●Absolute maximum ratings (Ta = 25°C)

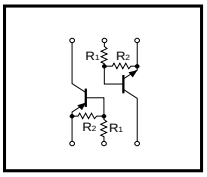
Parameter	Symbol	Limits	Unit	
Supply voltage	V_{CC}	50	V	
Input voltage	V_{IN}	5	V	
		–5		
Output current	I_C	500	mA	
Power dissipation	Pd	300 (TOTAL)	mW	*
Junction temperature	Tj	150	˚C	
Storage temperature	Tstg	–55~+150	˚C	

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

●Packaging specifications and h_{FE}

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	
	$V_{I\,(on)}$	1.1	–	–		V_O=0.3V , I_O=1mA	
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	*1
Transition frequency	f_T*2	–	250	–	MHz	V_{CE}=10V , I_E=–50mA , f=100MHz	*2
Input resistance	R_1	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.