

General purpose (dual digital transistors)

UMB6N / IMB6A

● Features

1) Two DTA144E chips in a UMT or SMT package.

● Circuit diagrams



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	-50	V
Input voltage	V _{IN}	-40	V
		10	
Output current	I _O	50	mA
Power dissipation	UMB6N	150 (TOTAL)	mW *1
	IMB6A	300 (TOTAL)	
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55~+150	°C

*1 120mW per element must not be exceeded.
*2 200mW per element must not be exceeded.

● Package, marking, and packaging specifications

Part No.	UMB6N	IMB6A
Package	UMT6	SMT6
Marking	B6	B6
Code	TR	T110
Basic ordering unit (pieces)	3000	3000

● Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V _{I (off)}	—	—	-0.5	V	V _{CC} =-5V, I _O =-100 μA V _O =-0.3V, I _O =-2mA
	V _{I (on)}	-3.0	—	—		
Output voltage	V _{O (on)}	—	-0.1	-0.3	V	I _O =-10mA, I _I =-0.5mA
Input current	I _I	—	—	-0.18	mA	V _I =-5V
Output current	I _{O (off)}	—	—	-0.5	μA	V _{CC} =-50V, V _I =0V
DC current gain	G _I	68	—	—	—	I _O =-5mA, V _O =-5V
Input resistance	R _I	32.9	47	61.1	kΩ	—
Resistance ratio	R _Z /R _I	0.8	1.0	1.2	—	—
Transition frequency	f _T	—	250	—	MHz	V _{CE} =-10V, I _E =5mA, f=100MHz *

* Transition frequency of the device.

(94S-846-A144E)

General purpose (dual digital transistors)

UMH6N / IMH6A

● Features

1) Two DTC144E chips in a SMT package.

● Circuit diagrams



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	50	V
Input voltage	V _{IN}	40	V
		-10	
Output current	I _O	30	mA
Power dissipation	UMH6N	150 (TOTAL)	mW *1
	IMH6A	300 (TOTAL)	
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-50~+150	°C

*1 120mW per element must not be exceeded.
*2 200mW per element must not be exceeded.

● Package, marking, and packaging specifications

Part No.	UMH6N	IMH6A
Package	UMT6	SMT6
Marking	H6	H6
Code	TR	T108
Basic ordering unit (pieces)	3000	3000

● Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V _{I (off)}	—	—	0.5	V	V _{CC} =5V, I _O =100 μA V _O =0.3V, I _O =2mA
	V _{I (on)}	3	—	—		
Output voltage	V _{O (on)}	—	0.1	0.3	V	I _O /I _I =10mA/0.5mA
Input current	I _I	—	—	0.18	mA	V _I =5V
Output current	I _{O (off)}	—	—	0.5	μA	V _{CC} =50V, V _I =0V
DC current gain	G _I	68	—	—	—	I _O /V _O =5mA/5V
Input resistance	R _I	32.9	47	61.1	kΩ	—
Resistance ratio	R _Z /R _I	0.8	1	1.2	—	—
Transition frequency	f _T	—	250	—	MHz	V _{CE} =10V, I _E =-5mA, f=100MHz *

* Transition frequency of the device.

(96-484-C144E)