

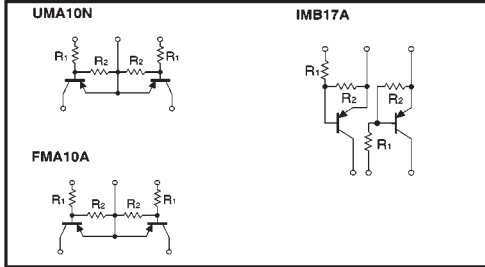
General purpose (dual digital transistors)

UMA10N / FMA10A / IMB17A

●Features

1) Two DTA113Z 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}	-10 5	V
Output current	I _o	-100	mA
Power dissipation	Pd	UMA10N	150 (TOTAL)
		FMA10A, IMB17A	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.	UMA10N	FMA10A	IMB17A
Package	UMT5	SMT5	SMT6
Marking	A10	A10	B17
Code	TR	T148	T108
Basic ordering unit (pieces)	3000	3000	3000

●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 =-100 μA
	V _{I (ON)}	-3.0	—	—	—	V _o =-0.3V, I _o =-20mA
Output voltage	V _{O (ON)}	—	-0.1	-0.3	V	I _o /I _e =-10mA/-0.5mA
Input current	I _i	—	—	-7.2	mA	V _i =-5V
Output current	I _{o (OFF)}	—	—	-0.5	μA	V _{cc} =-50V, V _i =0V
DC current gain	G _i	33	—	—	—	V _o =-5V, I _o =-5mA
Input resistance	R ₁	0.7	1.0	1.3	kΩ	—
Resistance ratio	R ₂ /R ₁	8	10	12	—	—
Transition frequency	f _r	—	250	—	MHz	V _{ce} =-10V, I _e =5mA, f=100MHz *

* Transition frequency of the device.

(96-388-A113Z)

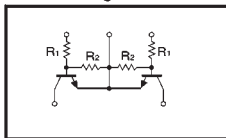
General purpose (dual digital transistors)

UMG10N

●Features

1) Two DTC113Z chips in a UMT package.

●Circuit diagram



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{cc}	50	V
Input voltage	V _{IN}	10 -5	V
Output current	I _o	100	mA *
Power dissipation	Pd	150 (TOTAL)	mW
Storage temperature	T _{stg}	-50~+150	°C

* 120mW per element must not be exceeded.

●Package, marking, and packaging specifications

Part No.	UMG10N
Package	UMT5
Marking	G10
Code	TR
Basic ordering unit (pieces)	3000

●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 =100 μA
	V _{I (ON)}	3	—	—	—	V _o =0.3V, I _o =20mA
Output voltage	V _{O (ON)}	—	0.1	0.3	V	I _o =10mA, I _e =0.5mA
Input current	I _i	—	—	7.2	mA	V _i =5V
Output current	I _{o (OFF)}	—	—	0.5	μA	V _{cc} =50V, V _i =0V
DC current gain	G _i	33	—	—	—	I _o =5mA, V _o =5V
Input resistance	R ₁	0.7	1	1.3	kΩ	—
Resistance ratio	R ₂ /R ₁	8	10	12	—	—
Transition frequency	f _r	—	250	—	MHz	V _{ce} =10V, I _e =-5mA, f=100MHz *

* Transition frequency of the device.

(94S-811-C113Z)