

## Emitter common (dual digital transistors)

### UMA6N / FMA6A

#### ●Features

- 1) Two DTA114T chips in a UMT or SMT package.

#### ●Circuit diagrams



#### ●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V <sub>CB0</sub>	-50	V
Collector-emitter voltage	V <sub>CE0</sub>	-50	V
Emitter-base voltage	V <sub>EB0</sub>	-5	V
Collector current	I <sub>C</sub>	-100	mA
Collector power dissipation	UMA6N	150 (TOTAL)	mW
	FMA6A	300 (TOTAL)	
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-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.	UMA6A	FMA6A
Package	UMT5	SMT5
Marking	A6	A6
Code	TR	T148
Basic ordering unit (pieces)	3000	3000

#### ●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV <sub>CB0</sub>	-50	—	—	V	I <sub>C</sub> = -50 μA
Collector-emitter breakdown voltage	BV <sub>CE0</sub>	-50	—	—	V	I <sub>C</sub> = -1mA
Emitter-base breakdown voltage	BV <sub>EB0</sub>	-5	—	—	V	I <sub>E</sub> = -50 μA
Collector cutoff current	I <sub>CB0</sub>	—	—	-0.5	μA	V <sub>CB</sub> = -50V
Emitter cutoff current	I <sub>EB0</sub>	—	—	-0.5	μA	V <sub>EB</sub> = -4V
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	—	—	-0.3	V	I <sub>C</sub> /I <sub>B</sub> = -5mA/-0.5mA
DC current transfer ratio	h <sub>FE</sub>	100	250	600	—	V <sub>CE</sub> /I <sub>C</sub> = -5V/I <sub>C</sub> = -1mA
Transition frequency	f <sub>T</sub>	—	250	—	MHz	V <sub>EB</sub> = 10V, I <sub>E</sub> = -5mA, f = 100MHz *
Input resistance	R <sub>i</sub>	32.9	47	61.1	kΩ	—

\* Transition frequency of the device.

(94S-777-A144T)

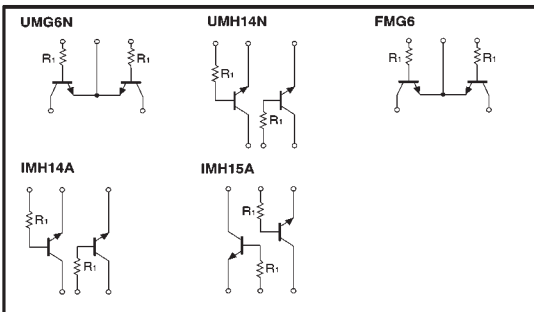
## General purpose (dual digital transistors)

### UMG6N / UMH14N / FMG6A / IMH14A / IMH15A

#### ●Features

- 1) Two DTC114T chips in a UMT or SMT package.

#### ●Circuit diagrams



#### ●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V <sub>CB0</sub>	50	V
Collector-emitter voltage	V <sub>CE0</sub>	50	V
Emitter-base voltage	V <sub>EB0</sub>	5	V
Collector current	I <sub>C</sub>	100	mA
Collector power dissipation	UMG6N, UMH14N	150 (TOTAL)	mW
	FMG6A, IMH14A, IMH15A	300 (TOTAL)	
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55~+150	°C

#### ●Package, marking, and packaging specifications

Part No.	UMG6N	UMH14N	FMG6A	IMH14A	IMH15A
Package	UMT5	UMT6	SMT5	SMT6	SMT6
Marking	G6	H14	G6	H14	H15
Code	TR	TR	T148	T108	T110
Basic ordering unit (pieces)	3000	3000	3000	3000	3000

#### ●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV <sub>CB0</sub>	50	—	—	V	I <sub>C</sub> = 50 μA
Collector-emitter breakdown voltage	BV <sub>CE0</sub>	50	—	—	V	I <sub>C</sub> = 1mA
Emitter-base breakdown voltage	BV <sub>EB0</sub>	5	—	—	V	I <sub>E</sub> = 50 μA
Collector cutoff current	I <sub>CB0</sub>	—	—	0.5	μA	V <sub>CB</sub> = 50V
Emitter cutoff current	I <sub>EB0</sub>	—	—	0.5	μA	V <sub>EB</sub> = 4V
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	—	—	0.3	V	I <sub>C</sub> /I <sub>B</sub> = 5mA/0.5mA
DC current transfer ratio	h <sub>FE</sub>	100	250	600	—	V <sub>CE</sub> /I <sub>C</sub> = 5V/1mA
Transition frequency	f <sub>T</sub>	—	250	—	MHz	V <sub>CE</sub> = 10V, I <sub>E</sub> = -5mA, f = 100MHz *
Input resistance	R <sub>i</sub>	32.9	47	61.1	kΩ	—

\* Transition frequency of the device.

(96-492-C144T)