

Emitter common (dual digital transistors)

UMA8N / FMA8A

●Features

1) Two DTA114Y chips in a UMT or SMT package.

●Circuit diagrams



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	Vcc	-50	V
Input voltage	VIN	-40	V
		6	
Output current	Io	-100	mA
Power dissipation	Pd	300 (TOTAL)	mW *
Storage temperature	Tstg	-50~+150	°C

* 200mW per element must not be exceeded.

●Package, marking, and packaging specifications

Part No.	UMA8A	FMA8A
Package	UMT5	SMT5
Marking	A8	A8
Code	TR	T148
Basic ordering unit (pieces)	3000	3000

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V1 (off)	—	—	-0.3	V	Vcc=-5V, Io=-100 μA
	V1 (on)	-1.4	—	—		V0=-0.3V, Io=-1mA
Output voltage	V0 (on)	—	-0.1	-0.3	V	Io=-10mA, Ii=-0.5mA
Input current	Ii	—	—	-0.88	mA	V1=-5V
Output current	Io (off)	—	—	-0.5	μA	Vcc=-50V, V1=0V
DC current gain	Gi	68	—	—	—	Io=-5mA, Vc=-5V
Input resistance	R1	—	10	—	kΩ	—
Resistance ratio	R2/R1	3.7	4.7	5.7	—	—

(94S-781-A114Y)

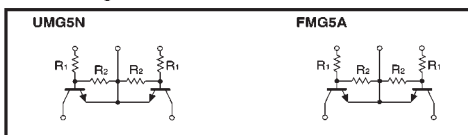
Emitter common (dual digital transistors)

UMG5N / FMG5A

●Features

1) Two DTC114Y chips in a UMT or SMT package.

●Circuit diagrams



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	Vcc	50	V
Input voltage	VIN	40	V
		-6	
Output current	Io	100	mA
Power dissipation	UMG5N	150 (TOTAL)	mW *1
	FMG5A	300 (TOTAL)	
Junction temperature	TJ	150	°C
Storage temperature	Tstg	-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.	UMG5N	FMG5A
Package	UMT5	SMT5
Marking	G5	G5
Code	TR	T148
Basic ordering unit (pieces)	3000	3000

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V1 (off)	—	—	0.3	V	Vcc=5V, Io=100 μA
	V1 (on)	1.4	—	—		V0=0.3V, Io=1mA
Output voltage	V0 (on)	—	0.1	0.3	V	Io=5mA, Ii=0.25mA
Input current	Ii	—	—	0.88	mA	V1=5V
Output current	Io (off)	—	—	0.5	μA	Vcc=50V, V1=0V
DC current gain	Gi	68	—	—	—	Io=5mA, Vc=5V
Transition frequency	fr	—	250	—	MHz	Vc=-10V, Ie=5mA, f=100MHz *
Input resistance	R1	7	10	13	kΩ	—
Resistance ratio	R2/R1	3.7	4.7	5.7	—	—

* Transition frequency of the device.

(94S-799-C114Y)