

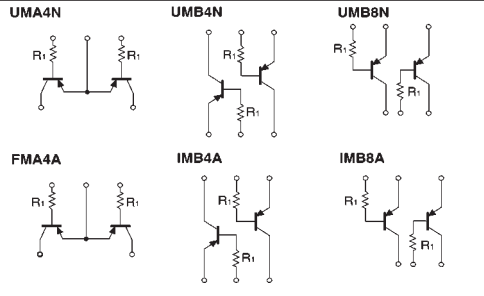
General purpose (dual digital transistors)

UMA4N / UMB4N / UMB8N / FMA4A / IMB4A / IMB8A

●Features

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

●Circuit diagrams



●Electrical characteristics ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	-50	—	—	V	$I_C = -50\text{ }\mu\text{A}$
Collector-emitter breakdown voltage	BV_{CEO}	-50	—	—	V	$I_C = -1\text{mA}$
Emitter-base breakdown voltage	BV_{EBO}	-5	—	—	V	$I_E = -50\text{ }\mu\text{A}$
Collector cutoff current	I_{CBO}	—	—	-0.5	μA	$V_{CB} = -50\text{V}$
Emitter cutoff current	I_{EBO}	—	—	-0.5	μA	$V_{EB} = -4\text{V}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.3	V	$I_C/I_E = -10\text{mA}/-1\text{mA}$
DC current transfer ratio	h_{FE}	100	250	600	—	$V_{CE} = -5\text{V}$, $I_C = -1\text{mA}$
Transition frequency	f_T	—	250	—	MHz	$V_{CE} = -10\text{V}$, $I_E = 5\text{mA}$, $f = 100\text{MHz}$ *
Input resistance	R_1	7	10	13	k Ω	—

●Absolute maximum ratings ($T_a=25^{\circ}\text{C}$)

Parameter		Symbol	Limits	Unit
Collector-base voltage		V_{CBO}	-50	V
Collector-emitter voltage		V_{CEO}	-50	V
Emitter-base voltage		V_{EBO}	-5	V
Collector current		I_C	-100	mA
Power dissipation	UMA4N/UMB4N/UMB8N	P_d	150 (TOTAL)	mW
	FMA4A/IMB4A/IMB8A		300 (TOTAL)	
Junction temperature		T_J	150	$^{\circ}\text{C}$
Storage temperature		T_{stg}	-55~+150	$^{\circ}\text{C}$

*1 120mW per element must not be exceeded.

*2 200mW per element must not be exceeded.

●Package, marking, and packaging specifications

Part No.	UMA4N	UMB4N	UMB8N	FMA4A	IMB4A	IMB8A
Package	UMT5	UMT6	UMT6	SMT5	SMT6	SMT6
Marking	A4	B4	B8	A4	B4	B8
Code	TR	TN	TR	T148	T110	T108
Basic ordering unit (pieces)	3000	3000	3000	3000	3000	3000