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℃)

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	
Collector power dissipation	UMA6N	P_C	150 (TOTAL)	mW	∗1
	FMA6A		300 (TOTAL)		∗2
Junction temperature		Tj	150	℃	
Storage temperature		Tstg	−55~+150	℃	

∗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℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	−50	—	—	V	I_C=−50 μA
Collector-emitter breakdown voltage	BV_{CEO}	−50	—	—	V	I_C=−1mA
Emitter-base breakdown voltage	BV_{EBO}	−5	—	—	V	I_E=−50 μA
Collector cutoff current	I_{CBO}	—	—	−0.5	μA	V_{CB}=−50V
Emitter cutoff current	I_{EBO}	—	—	−0.5	μA	V_{EB}=−4V
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	−0.3	V	I_C/I_B=−5mA/−0.5mA
DC current transfer ratio	h_{FE}	100	250	600	—	V_{CE}/I_C=−5V/I_C=−1mA
Transition frequency	f_T	—	250	—	MHz	V_{EB}=10V, I_E=−5mA, f=100MHz ∗
Input resistance	R_1	32.9	47	61.1	kΩ	—