

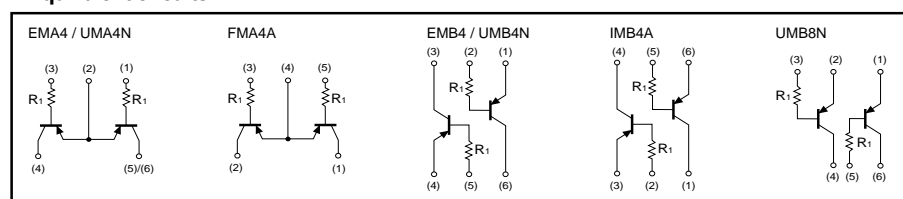
General purpose (dual digital transistors)

EMA4 / UMA4N / EMB4 / UMB4N / UMB8N / FMA4A / IMB4A

●Feature

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

●Equivalent circuits



●Absolute maximum ratings (Ta=25°C)

Parameter		Symbol	Limits	Unit
Collector-base voltage		V_{CB0}	-50	V
Collector-emitter voltage		V_{CE0}	-50	V
Emitter-base voltage		V_{EB0}	-5	V
Collector current		I_c	-100	mA
Power dissipation	EMA4 / UMA4N / EMB4 / UMB4N / UMB8N	P_d	150(TOTAL)	mW ^{*1}
	FMA4A / IMB4A		300(TOTAL)	mW ^{*2}
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	-55~+150	°C

*1 120mW per element must not be exceeded.
*2 200mW per element must not be exceeded.

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CB0}	-50	-	-	V	$I_c = -50\mu A$
Collector-emitter breakdown voltage	BV_{CE0}	-50	-	-	V	$I_c = -1mA$
Emitter-base breakdown voltage	BV_{EB0}	-5	-	-	V	$I_E = -50\mu A$
Collector cutoff current	I_{CB0}	-	-	-0.5	μA	$V_{CB} = -50V$
Emitter cutoff current	I_{EB0}	-	-	-0.5	μA	$V_{EB} = -4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	-0.3	V	$I_c/I_E = -10mA/-1mA$
DC current transfer ratio	h_{FE}	100	250	600	-	$V_{CE} = -5V, I_c = -1mA$
Transition frequency	f_T	-	250	-	MHz	$V_{CE} = -10V, I_E = 5mA, f = 100MHz$ *
Input resistance	R_1	7	10	13	k Ω	-

*Transition frequency of the device.

●Package, marking, and packaging specifications

Type	EMA4	UMA4N	EMB4	UMB4N	UMB8N	FMA4A	IMB4A
Package	EMT5	UMT5	EMT6	UMT6	UMT6	SMT5	SMT6
Marking	A4	A4	B4	B4	B8	A4	B4
Code	T2R	TR	T2R	TN	TR	T148	T110
Basic ordering unit (pieces)	8000	3000	8000	3000	3000	3000	3000

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FMA4A / IMB4A

Transistors

● External dimensions (Units : mm)

