

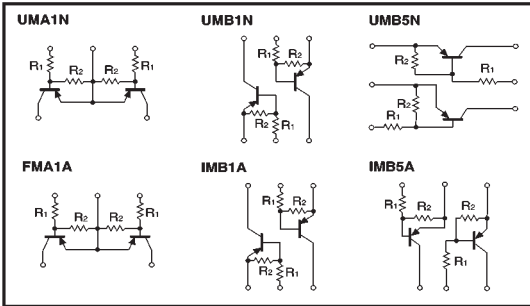
## General purpose (dual digital transistors)

UMA1N / UMB1N / UMB5N / FMA1A / IMB1A / IMB5A

●Features

1) Two DTA124E chips in a UMT or SMT package.

●Circuit diagrams



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$	—	—	-0.5	V	$V_{CC} = -5V, I_o = -100 \mu A$
	$V_{I(on)}$	-3	—	—		$V_o = -0.2V, I_o = -5mA$
Output voltage	$V_{O(on)}$	—	-0.1	-0.3	V	$I_o/I_c = -0.5mA/-10mA$
Input current	$I_i$	—	—	-0.36	mA	$V_i = -5V$
Output current	$I_{O(off)}$	—	—	-0.5	$\mu A$	$V_{CC} = -50V, V_i = 0V$
DC current gain	$G_i$	56	—	—	—	$V_o = -5V, I_o = -5mA$
Input resistance	$R_i$	15.4	22	28.6	k $\Omega$	—
Resistance ratio	$R_2/R_1$	0.8	1	1.2	—	—

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	$V_{CC}$	-50	V
Input voltage	$V_{IN}$	-40	V
		10	
Output current	$I_o$	-100	mA
Power dissipation	Pd	150 (TOTAL)	mW #1
		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.

●Package, marking, and packaging specifications

Part No.	UMA1N	UMB1N	UMB5N	FMA1A	IMB1A	IMB5A
Package	UMT5	UMT6	UMT6	SMT5	SMT6	SMT6
Marking	A1	B1	B5	A1	B1	B5
Code	TR	TN	TR	T148	T110	T110
Basic ordering unit (pieces)	3000	3000	3000	3000	3000	3000

(96-384-A124E)

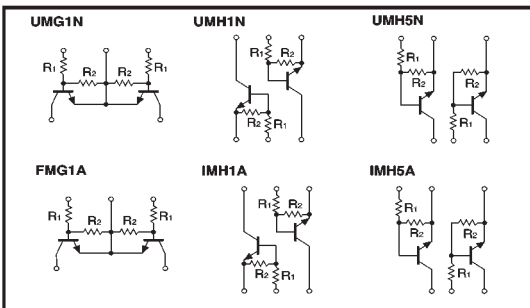
## General purpose (dual digital transistors)

UMG1N / UMH1N / UMH5N / FMG1A / IMH1A / IMH5A

●Features

1) Two DTC124E chips in a UMT or SMT package.

●Circuit diagrams



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$	—	—	0.5	V	$V_{CC} = 5V, I_o = 100 \mu A$
	$V_{I(on)}$	3	—	—		$V_o = 0.2V, I_o = 5mA$
Output voltage	$V_{O(on)}$	—	0.1	0.3	V	$I_o = 10mA, I_i = 0.5mA$
Input current	$I_i$	—	—	0.36	mA	$V_i = 5V$
Output current	$I_{O(off)}$	—	—	0.5	$\mu A$	$V_{CC} = 50V, V_i = 0V$
DC current gain	$G_i$	56	—	—	—	$V_o = 5V, I_o = 5mA$
Input resistance	$R_i$	15.4	22	28.6	k $\Omega$	—
Resistance ratio	$R_2/R_1$	0.8	1	1.2	—	—

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	$V_{CC}$	50	V
Input voltage	$V_{IN}$	40	V
		-10	
Output current	$I_o$	30	mA
Power dissipation	Pd	150 (TOTAL)	mW #1
		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.

●Package, marking, and packaging specifications

Part No.	UMG1N	UMH1N	UMH5N	FMG1A	IMH1A	IMH5A
Package	UMT5	UMT6	UMT6	SMT5	SMT6	SMT6
Marking	G1	H1	H5	G1	H1	H5
Code	TR	TN	TR	T148	T110	T110
Basic ordering unit (pieces)	3000	3000	3000	3000	3000	3000

(94S-789-C124E)