

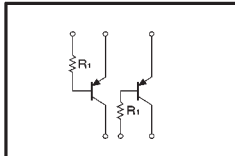
General purpose (dual digital transistors)

IMB7A

●Features

- 1) Two DTA143T chips in a SMT package.

●Circuit diagram



●Absolute maximum ratings (Ta=25°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
Collector power dissipation	P_C	300 (TOTAL)	mW *
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~+150	°C

* 200mW per element must not be exceeded.

●Package, marking, and packaging specifications

Part No.	IMB7A
Package	SMT6
Marking	B7
Code	T110
Basic ordering unit (pieces)	3000

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	-50	—	—	V	$I_C = -50 \mu A$
Collector-emitter breakdown voltage	BV_{CEO}	-50	—	—	V	$I_C = -1mA$
Emitter-base breakdown voltage	BV_{EBO}	-5	—	—	V	$I_E = -50 \mu A$
Collector cutoff current	I_{CBO}	—	—	-0.5	μA	$V_{CB} = -50V$
Emitter cutoff current	I_{EBO}	—	—	-0.5	μA	$V_{EB} = -4V$
DC current transfer ratio	h_{FE}	100	250	600	—	$V_{CE}/I_C = -5V/-1mA$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.3	V	$I_C/I_B = -5mA/-0.25mA$
Input resistance	R_i	3.29	4.7	6.11	k Ω	—

(94S-849-A143T)

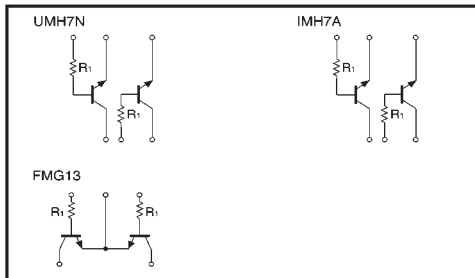
General purpose (dual digital transistors)

UMH7N / FMG13 / IMH7A

●Features

- 1) Includes two DTA143T transistors in a single UMT package.

●Circuit diagram



●Absolute maximum ratings (Ta=25°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
Collector power dissipation	P_C	150 (TOTAL) 300 (TOTAL)	mW *1 *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.	UMH7N	FMG13	IMH7A
Package	UMT6	SMT5	SMT6
Marking	H7	G13	H7
Code	TR	T148	T108
Basic ordering unit (pieces)	3000	3000	3000

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	50	—	—	V	$I_C = 50 \mu A$
Collector-emitter breakdown voltage	BV_{CEO}	50	—	—	V	$I_C = 1mA$
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	$I_E = 50 \mu A$
Collector cutoff current	I_{CBO}	—	—	0.5	μA	$V_{CB} = 50V$
Emitter cutoff current	I_{EBO}	—	—	0.5	μA	$V_{EB} = 4V$
DC current transfer ratio	h_{FE}	100	250	600	—	$V_{CE}/I_C = 5V/1mA$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	0.3	V	$I_C/I_B = 5mA/0.25mA$
Input resistance	R_i	3.29	4.7	6.11	k Ω	—

(94S-877-C143T)