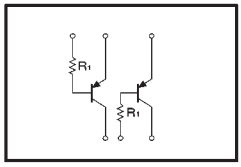
General purpose (dual digital transistors)
IMB7A

●**Features**

1) Two DTA143T chips in a SMT package.

●**Circuit diagram**



●**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	Pc	300 (TOTAL)	mW	*
Junction temperature	Tj	150	℃	
Storage temperature	Tstg	−55～+150	℃	

* 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℃)

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
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_1	3.29	4.7	6.11	kΩ	—

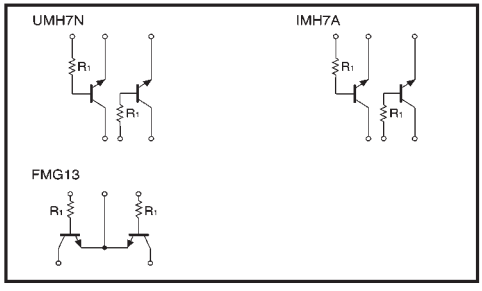
(94S-849-A143T)

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℃)

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	UMH7N	Pc	150 (TOTAL)	mW	*1
	FMG13, IMH7A		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.	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℃)

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
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_1	3.29	4.7	6.11	kΩ	—

(94S-877-C143T)