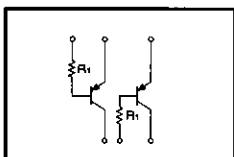


Digital Transistor (Dual Digital Transistors for Inverter Driver)

IMB7A

Features

- 1) Two DTA143T transistors are housed in an SMT package.

Circuit schematic**Absolute maximum ratings (Ta=25°C)**

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CEO}	-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

* 200 mW per element must not be exceeded.

Package, marking, and packaging specifications

Type	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 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 _{CE} =-50V
Emitter cutoff current	I _{CEO}	—	—	-0.5	μA	V _{CE} =-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	kΩ	—

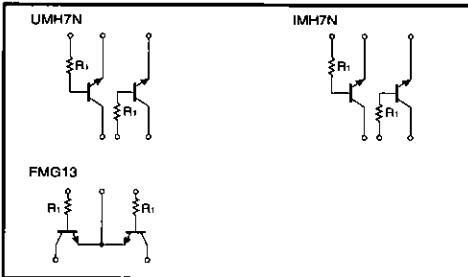
94S-849-A143T

Digital Transistor (Dual Digital Transistors for Inverter Driver)

UMH7N / FMG13 / IMH7A

Features

- 1) Two DTA143T transistors are housed in an UMT package.

Circuit schematic**Absolute maximum ratings (Ta=25°C)**

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CEO}	50	V
Collector-emitter voltage	V _{CEO}	50	mA
Emitter-base voltage	V _{EBO}	5	V
Collector current	I _C	100	* mW *+
Collector power dissipation	UMH7N	150 (TOTAL)	°C
	FMG13, IMH7A	300 (TOTAL)	°C
Junction temperature	T _J	150	°C
Storage temperature	T _{STG}	-55~150	°C

* 1 120 mW per element must not be exceeded.

* 2 200 mW per element must not be exceeded.

Package, marking, and packaging specifications

Type	UMH7N	FMG13	IMH7A
Package	UMT6	SMT5	OMT6
Marking	H7	G13	T108
Code	TR	T148	3000
Basic ordering unit (pieces)	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 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 _{CE} =50V
Emitter cutoff current	I _{CEO}	—	—	0.5	μA	V _{CE} =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	kΩ	—

Dual transistors