General purpose (dual digital transistors)

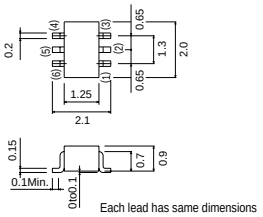
UMH7N / IMH7A

●Features

1) Includes two DTC143T transistors in a single UMT package.

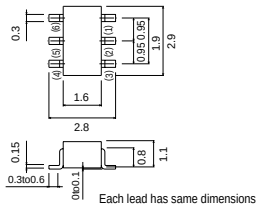
●External dimensions (Units : mm)

UMH7N



ROHM : UMT6
EIAJ : SC-88

IMH7A



ROHM : SMT6
EIAJ : SC-74

●Absolute maximum ratings (Ta=25°C)

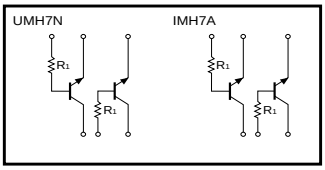
Parameter		Symbol	Limits	Unit	
Collector-base voltage		V_{CBO}	50	V	
Collector-emitter voltage		V_{CEO}	50	V	
Emitter-base voltage		V_{EBO}	5	V	
Collector current		I_C	100	mA	
Collector power dissipation	UMH7N	Pc	150 (TOTAL)	mW	∗1
	FMG13, IMH7A		300 (TOTAL)		∗2
Junction temperature		Tj	150	°C	
Storage temperature		Tstg	−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	IMH7A
Package	UMT6	SMT6
Marking	H7	H7
Code	TR	T108
Basic ordering unit (pieces)	3000	3000

●Circuit diagram



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	50	–	–	V	I_C=50μA
Collector-emitter breakdown voltage	BV_{CEO}	50	–	–	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	5	–	–	V	I_E=50μA
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	–