

# General purpose (dual digital transistors)

## UMH7N / IMH7A

### ●Features

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

### ●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 FMG13, IMH7A	$P_C$	150 (TOTAL) *1
			300 (TOTAL) *2
Junction temperature	$T_J$	150	°C
Storage temperature	$T_{stg}$	-55~+150	°C

\*1 120mW per element must not be exceeded.

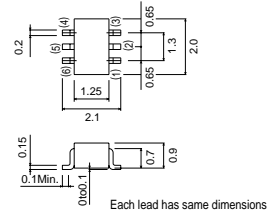
\*2 200mW per element must not be exceeded.

### ●Package, marking, and Packaging specifications

Part No.	UMH7N	IMH7A
Package	UMT6	SMT6
Marking	H7	H7
Code	TR	T108
Basic ordering unit (pieces)	3000	3000

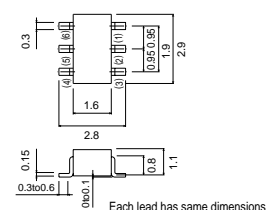
### ●External dimensions (Units : mm)

#### UMH7N



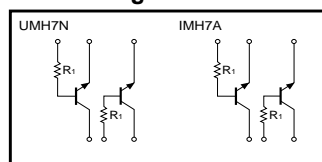
ROHM : UMT6  
EIAJ : SC-88

#### IMH7A



ROHM : SMT6  
EIAJ : SC-74

### ●Circuit diagram



### ●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	$\mu A$	$V_{CB}=50V$
Emitter cutoff current	$I_{EBO}$	—	—	0.5	$\mu A$	$V_{EB}=4V$
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	k $\Omega$	—