

EMH7 / UMH7N

Transistors

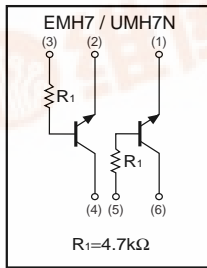
General purpose (dual digital transistors)

EMH7 / UMH7N

●Features

- 1) Two DTC143T chips in a EMT or UMT package.

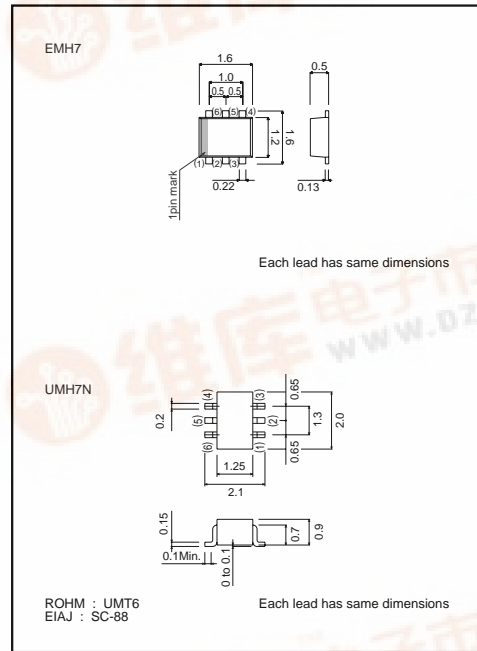
●Equivalent circuits



●Package, marking, and packaging specifications

Type	EMH7	UMH7N
Package	EMT6	UMT6
Marking	H7	H7
Code	TR	TR
Basic ordering unit (pieces)	8000	3000

●External dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CB0}	50	V
Collector-emitter voltage	V _{CE0}	50	V
Emitter-base voltage	V _{EB0}	5	V
Collector current	I _c	100	mA
Power dissipation	P _d	150(TOTAL)	mW *
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* 120mW per element must not be exceeded.

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CB0}	50	-	-	V	I _c =50μA
Collector-emitter breakdown voltage	BV _{CE0}	50	-	-	V	I _c =1mA
Emitter-base breakdown voltage	BV _{EB0}	5	-	-	V	I _E =50μA
Collector cutoff current	I _{CB0}	-	-	0.5	μA	V _{CB} =50V
Emitter cutoff current	I _{EB0}	-	-	0.5	μA	V _{EB} =4V
Collector-emitter saturation voltage	V _{CE(sat)}	-	-	0.3	V	I _c /I _B =5mA/0.25mA
DC current transfer ratio	h _{FE}	100	250	600	-	V _{CE} =5V, I _c =1mA
Transition frequency	f _T	-	250	-	MHz	V _{CE} =10V, I _E =-5mA, f=100MHz *
Input resistance	R ₁	3.29	4.7	6.11	kΩ	-

*Transition frequency of the device.

Transistors

●Electrical characteristics curves

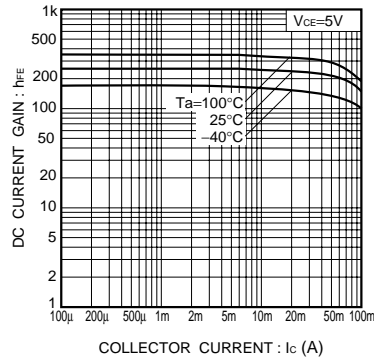


Fig.1 DC current gain vs. collector current

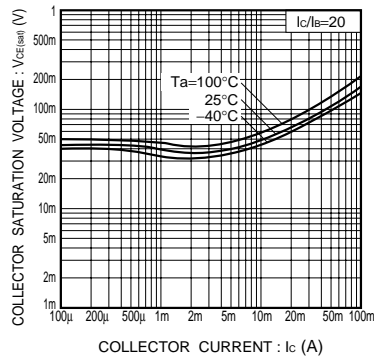


Fig.2 Collector-emitter saturation voltage vs. collector current

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