

General purpose (dual digital transistors)

EMH25

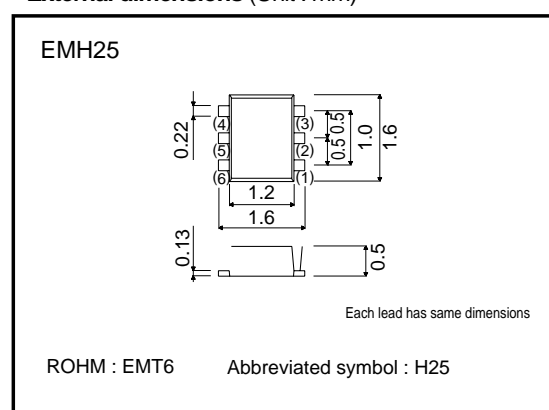
●Features

- 1) Two DTC143Z chips in a EMT package.
- 2) Mounting possible with EMT automatic mounting machines.
- 3) Transistor elements are independent, eliminating interference.
- 4) Mounting cost and area can be cut in half.

●Structure

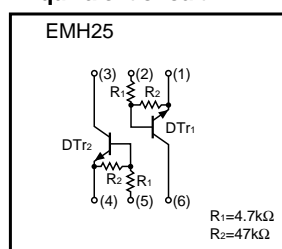
Epitaxial planar type
NPN silicon transistor
(Built-in resistor type)

●External dimensions (Unit : mm)



The following characteristics apply to both DTr₁ and DTr₂.

●Equivalent circuit



●Packaging specifications

Type	Package	Taping
	Code	T2R
	Basic ordering unit (pieces)	8000
	EMH25	○

Transistors

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	50	V
Input voltage	V _{IN}	30	V
		-5	
Output current	I _O	100	mA
Collector current	I _C (Max.)	100	mA
Power dissipation	P _d	150 (TOTAL)	mW *1
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

*1 120mW per element must not be exceeded.

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V _{I(off)}	—	—	0.5	V	V _{CC} =5V, I _O =100μA
	V _{I(on)}	1.3	—	—		V _O =0.3V, I _O =5mA
Output voltage	V _{O(on)}	—	0.1	0.3	V	I _O /I _I =5mA/0.25mA
Input current	I _I	—	—	1.8	mA	V _I =5V
Output current	I _{O(off)}	—	—	0.5	μA	V _{CC} =50V, V _I =0V
DC current gain	G _I	80	—	—	—	V _O =5V, I _O =10mA
Input resistance	R _I	3.29	4.7	6.11	kΩ	—
Resistance ratio	R ₂ /R ₁	8	10	12	—	—
Transition frequency	f _T	—	250	—	MHz	V _{CE} =10V, I _E =-5mA, f=100MHz *

*Transition frequency of the device

●Electrical characteristic curves

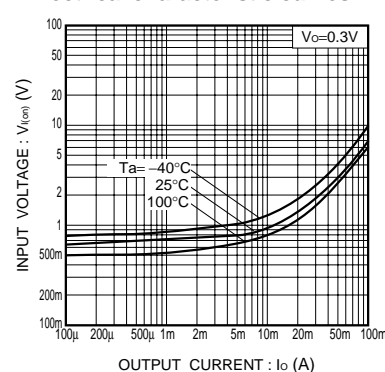


Fig.1 Input voltage vs. output current (ON characteristics)

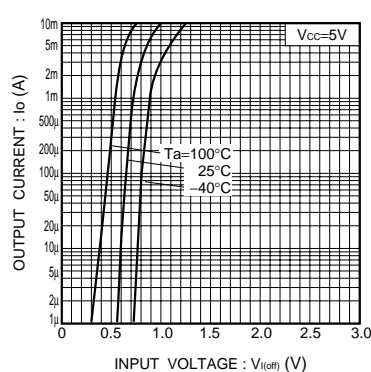


Fig.2 Output current vs. input voltage (OFF characteristics)

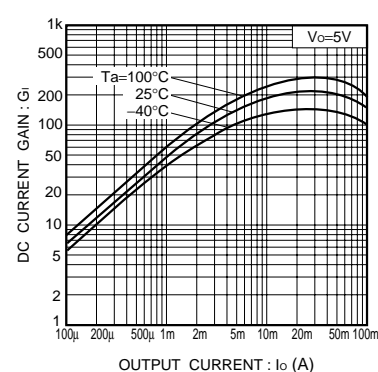


Fig.3 DC current gain vs. output current

Transistors

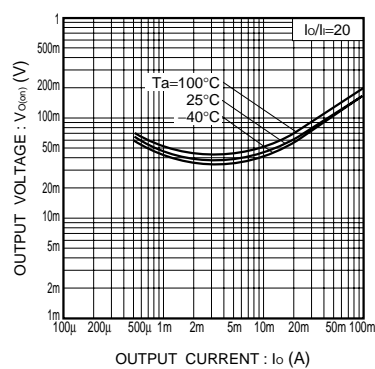


Fig.4 Output voltage vs. output current

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