

General purpose (dual digital transistors)

EMH16

●Features

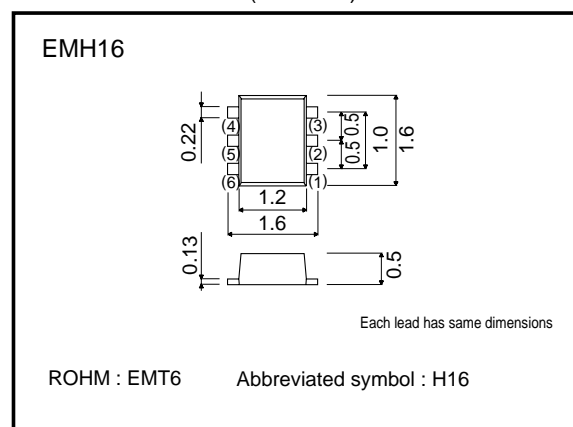
- 1) Two DTC115E chips in a EMT package.
- 2) Mounting possible with EMT automatic mounting machines.
- 3) Transistor elements are independent, eliminating interference.
- 4) Mounting cost and area can be cut in half.

●Structure

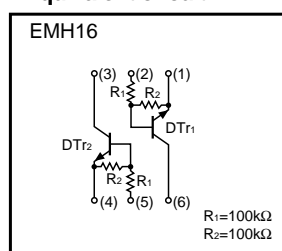
Epitaxial planar type
NPN silicon transistor
(Built-in resistor type)

The following characteristics apply to both DTr₁ and DTr₂.

●External dimensions (Unit : mm)



●Equivalent circuit



●Packaging specifications

Type	Package	Taping
	Code	T2R
	Basic ordering unit (pieces)	8000
	EMH16	○

Transistors

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	50	V
Input voltage	V _{IN}	40	V
		-10	
Output current	I _O	20	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)}	3	—	—		V _O =0.3V, I _O =1mA
Output voltage	V _{O(on)}	—	0.1	0.3	V	I _O /I _I =5mA/0.25mA
Input current	I _I	—	—	0.15	mA	V _I =5V
Output current	I _{O(off)}	—	—	0.5	μA	V _{CC} =50V, V _I =0V
DC current gain	G _I	82	—	—	—	V _O =5V, I _O =10mA
Input resistance	R _I	70	100	130	kΩ	—
Resistance ratio	R ₂ /R ₁	0.8	1	1.2	—	—
Transition frequency	f _T	—	250	—	MHz	V _{CE} =10V, I _E =-5mA, f=100MHz *

*Transition frequency of the device

●Electrical characteristic curves

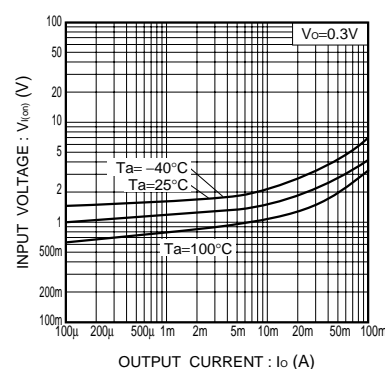


Fig.1 Input voltage vs. output current (ON characteristics)

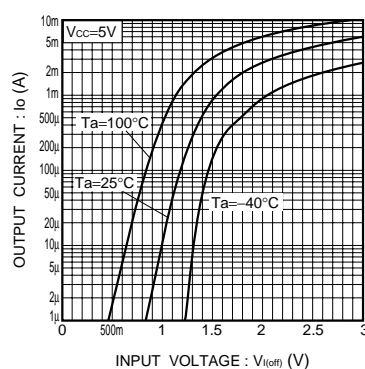


Fig.2 Output current vs. input voltage (OFF characteristics)

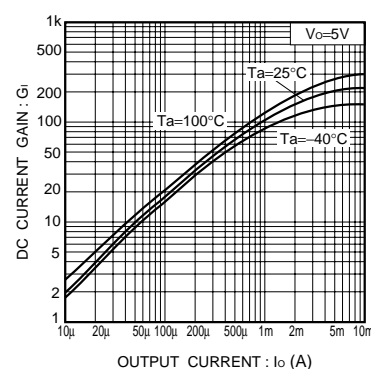


Fig.3 DC current gain vs. output current

Transistors

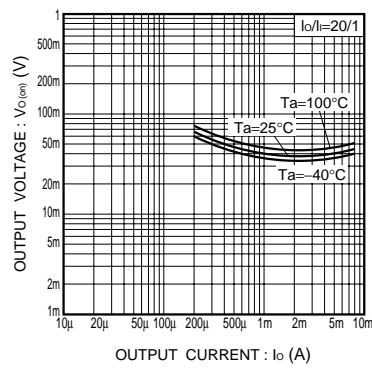


Fig.4 Output voltage vs. output current

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