

General purpose (dual digital transistors)

EMH10 / UMH10N

●Structure

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

●Features

- 1) Two DTC123J chips in a EMT or UMT package.
- 2) Mounting possible with EMT3 or UMT3 automatic mounting machines.
- 3) Transistor elements are independent, eliminating interference.
- 4) Mounting cost and area can be cut in half.

●Packaging specifications

Type	Package	Taping	
	Code	T2R	TN
	Basic ordering unit (pieces)	8000	3000
EMH10		○	—
UMH10N		—	○

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	50	V
Input voltage	V_{IN}	12 -5	V
Output current	I_O	100	mA
	I_C (Max.)	100	mA
Power dissipation	EMH10, UMH10N P_d	150 (TOTAL)	mW *
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~+150	°C

* 120mW per element must not be exceeded.

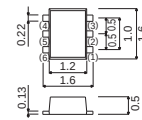
●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$	—	—	0.5	V	$V_{CC}=5V, I_O=100\mu A$
	$V_{I(on)}$	1.1	—	—		$V_O=0.3V, I_O=5mA$
Output voltage	$V_{O(on)}$	—	0.1	0.3	V	$I_O/I_I=5mA/0.25mA$
Input current	I_I	—	—	3.6	mA	$V_I=5V$
Output current	$I_{O(off)}$	—	—	0.5	μA	$V_{CC}=50V, V_I=0V$
DC current gain	G_I	80	—	—	—	$V_O=5V, I_O=10mA$
Transition frequency	f_T	—	250	—	MHz	$V_{CE}=10V, I_E=-5mA, f=100MHz$ *
Input resistance	R_1	1.54	2.2	2.86	k Ω	—
Resistance ratio	R_2/R_1	17	21	26	—	—

* Transition frequency of the device

●Dimensions (Unit : mm)

EMH10

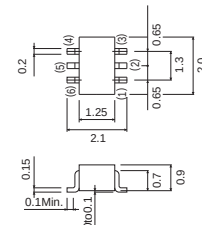


Each lead has same dimensions

Abbreviated symbol : H10

ROHM : EMT6

UMH10N

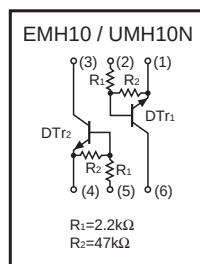


Each lead has same dimensions

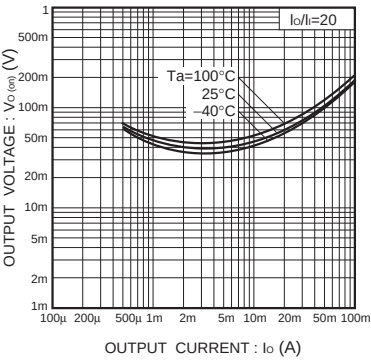
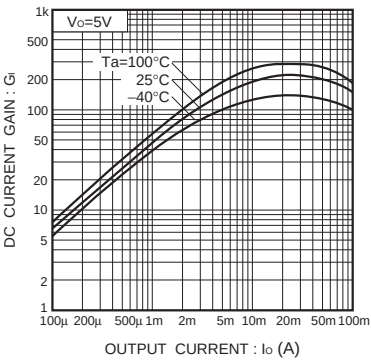
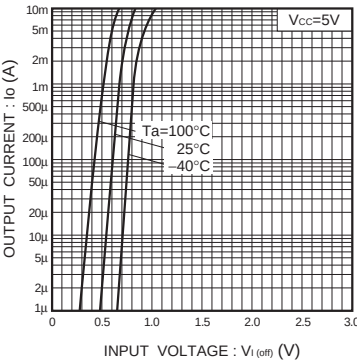
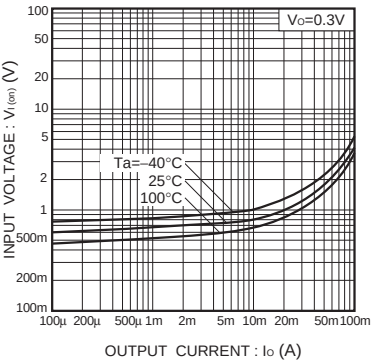
ROHM : UMT6
 EIAJ : SC-88

Abbreviated symbol : H10

●Equivalent circuit



●Electrical characteristic curves



Notes

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