

## Digital transistors (built-in resistors)

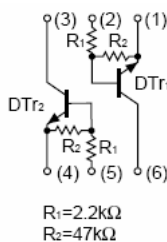
### EMH10 General purpose transistors (dual transistors)

#### FEATURES

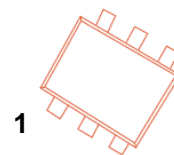
- Two DTC123J chips in a package.
- Mounting possible with SOT-563 automatic mounting machines.
- Transistor elements are independent, eliminating interference.
- Mounting cost and area be cut in half.

Marking: H10

Equivalent circuit



SOT-563



#### Absolute maximum ratings(Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	$V_{CC}$	50	V
Input voltage	$V_{IN}$	-5~12	V
Output current	$I_O$	100	mA
	$I_{C(MAX)}$	100	
Power dissipation	$P_d$	150	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55~150	°C

#### 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	$\mu A$	$V_{CC}=50V, V_I=0$
DC current gain	$G_I$	80				$V_O=5V, I_O=10mA$
Input resistance	$R_1$	1.54	2.2	2.86	K $\Omega$	-
Resistance ratio	$R_2/R_1$	17	21	26		-
Transition frequency	$f_T$		250		MHz	$V_{CE}=10V, I_E=5mA, f=100MHz$