

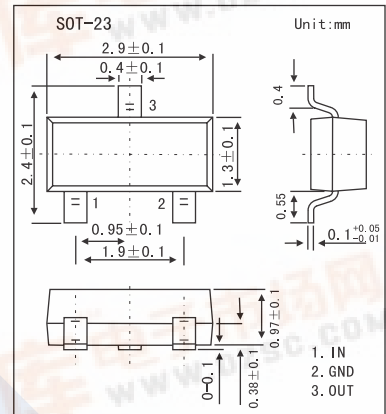
SMD Type Transistors

Digital Transistors

DTA114ECA

Features

- PNP Epitaxial Planar Silicon Transistor (Resistor Built-In Typ.)
- Built-In Bias Resistors Enable The Configuration of An Inverter Circuit Without Connecting External Input Resistors (See Equivalent Circuit).



Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Supply Voltage	V _{CC}	-50	V
Input Voltage	V _{IN}	-40 to +10	V
Output Current	I _O	-50	mA
	I _{C(Max)}	-100	
Power Dissipation	P _D	200	mW
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Input Voltage	V _{I(off)}	V _{CC} = -5V , I _O = -100 μ A			-0.5	V
	V _{I(on)}	V _O = -0.3V , I _O = -10mA	-3			
Output Voltage	V _{O(on)}	I _O /I _I = -10mA/-0.5mA			-0.3	V
Input Current	I _I	V _I = -5V			-0.88	mA
Output Current	I _{O(off)}	V _{CC} = -50V , V _I = 0V			-0.5	μ A
DC Current Gain	G _I	V _O = -5V , I _O = -5mA	30			
Input Resistance	R ₁		7	10	13	k Ω
Resistance Ratio	R ₂ /R ₁		0.8	1	1.2	
Transistion Frequency	f _T *	V _{CE} = -10V , I _E = 5mA , f = 100MHz		250		MHz

* Characteristics of built-in transistor

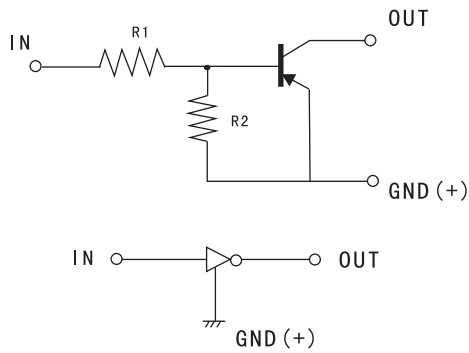
Marking

Marking	14
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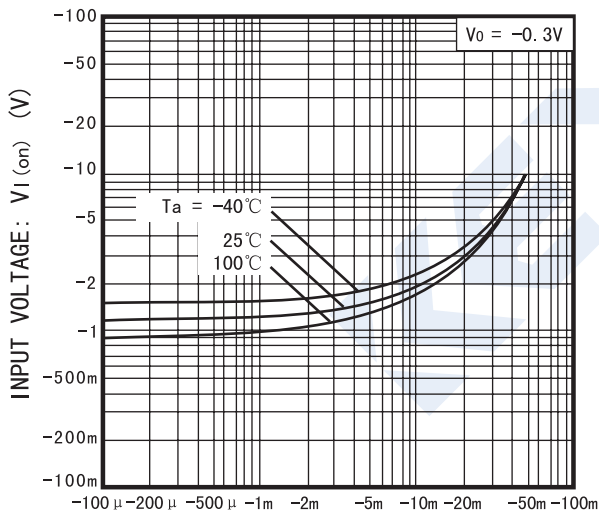
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■ Equivalent Circuit

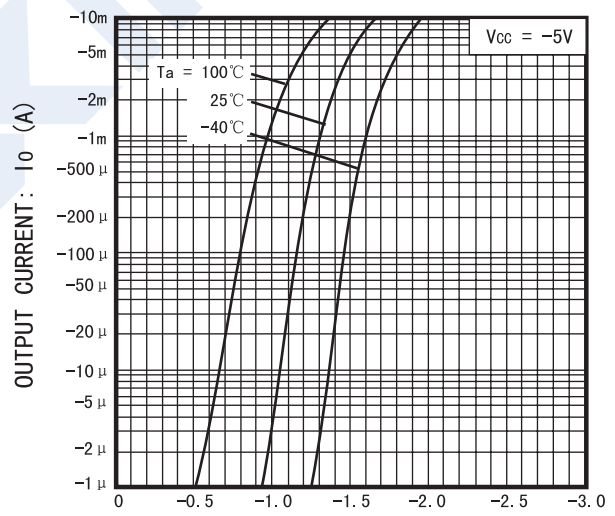


$R_1 = R_2 = 10\text{k}\Omega$

■ Electrical Characteristics Curves

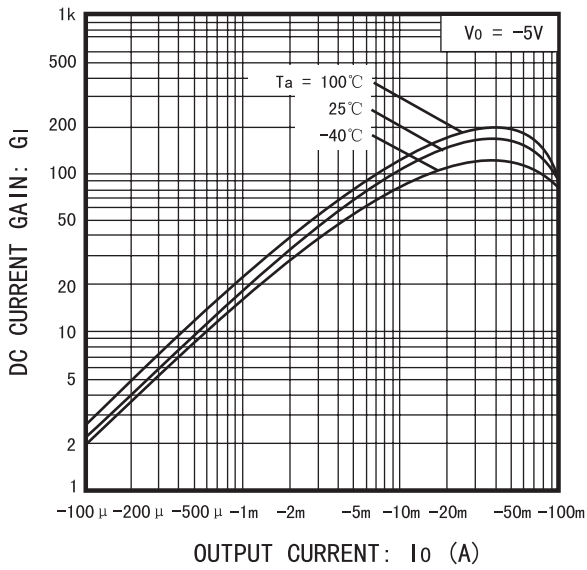


Input voltage vs. Output current (ON characteristics)

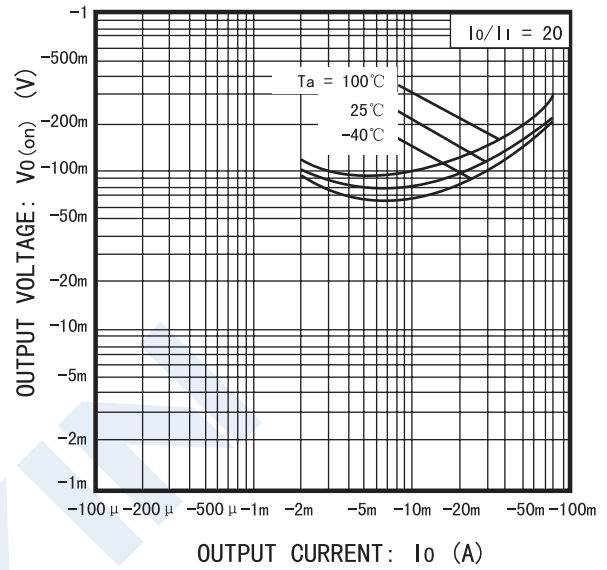


Output current vs. Input voltage (OFF characteristics)

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DC current gain vs. Output current



Output voltage vs. Output current