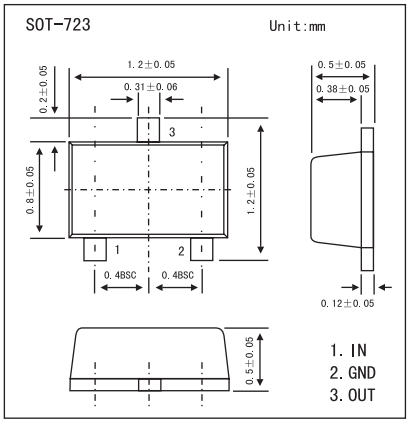
Digital Transistors

LTA014EMT2L



■ 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℃

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	150	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Input Voltage	$V_{I(off)}$	V_{CC} = -5V , I_O = -100μA			-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	μA
DC Current Gain	G_I	V_O = -5V , I_O = -5mA	30			
Input Resistance	R_1		7	10	13	kΩ
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

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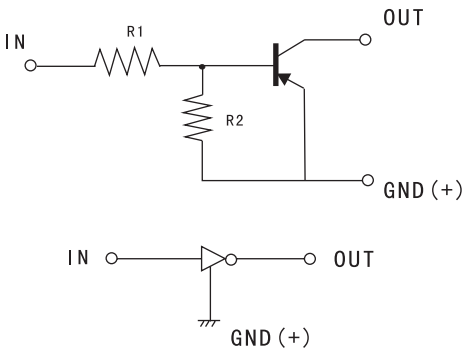
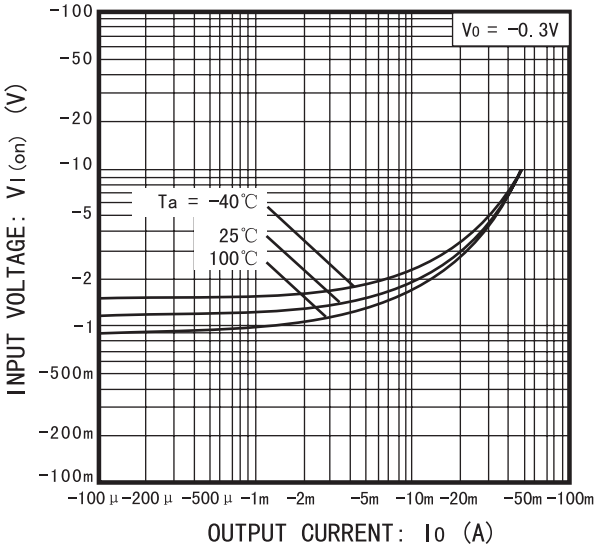
■ Equivalent Circuit

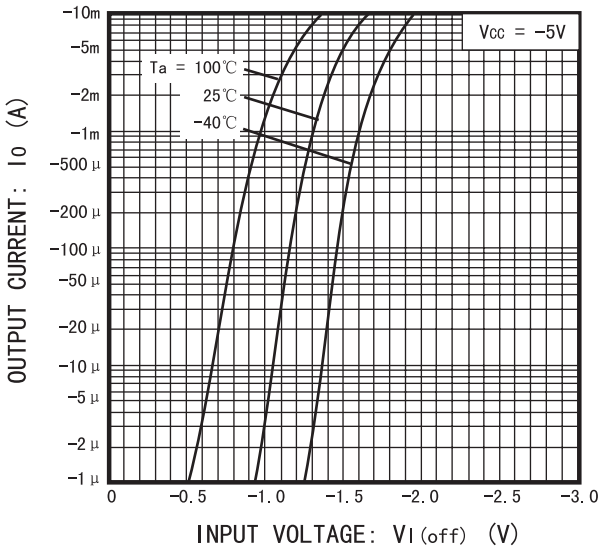


$R_1 = R_2 = 10k\Omega$

■ Electrical Characteristics Curves

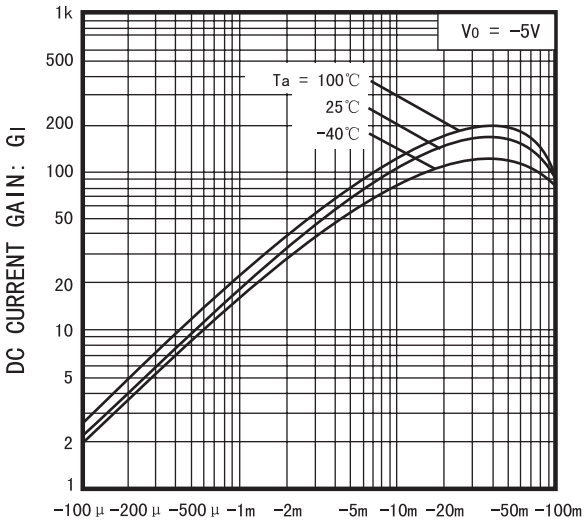


Input voltage vs. Output current
(ON characteristics)

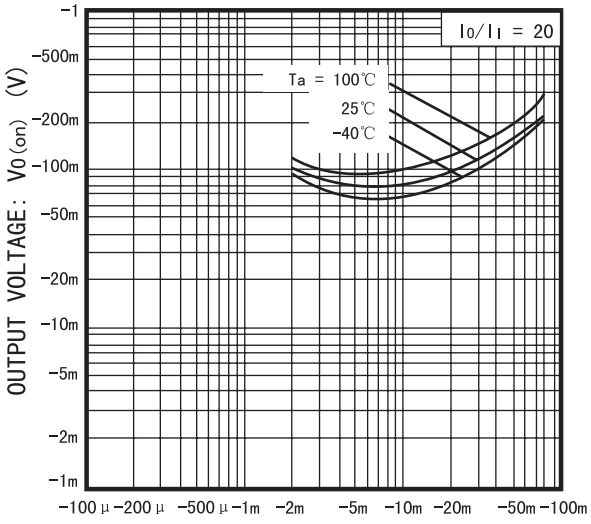


Output current vs. Input voltage
(OFF characteristics)

LTA014EMT2L



DC current gain vs Output current



Output voltage vs Output current