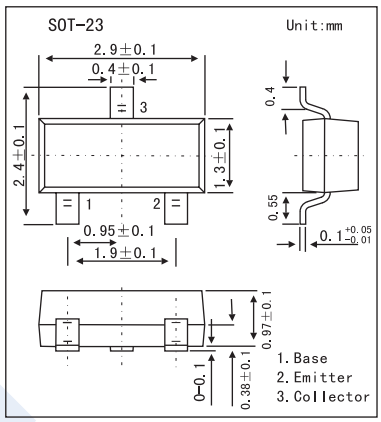
Digital Transistors

DTA114TCA



■ 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
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-100	mA
Collector Power Dissipation	P_C	200	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C = -50 μ A	-50			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C = -1mA	-50			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E = -50 μ A	-5			V
Collector Cut-off Current	I_{CBO}	V_{CB} = -50V			-0.5	μ A
Emitter Cut-off Current	I_{EBO}	V_{EB} = -4V			-0.5	μ A
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = -10mA , I_B = -1mA			-0.3	V
DC Current Transfer Ratio	h_{FE}	V_{CE} = -5V , I_C = -1mA	100	250	600	
Input Resistance	R_1		7	10	13	kΩ
Transistion Frequency	f_T *	V_{CE} = -10V , I_E = 5mA , f = 100MHz		250		MHz

* Characteristics of built-in transistor

■ Marking

Marking	94

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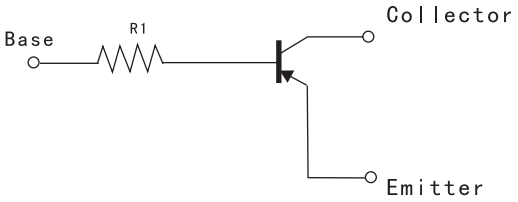
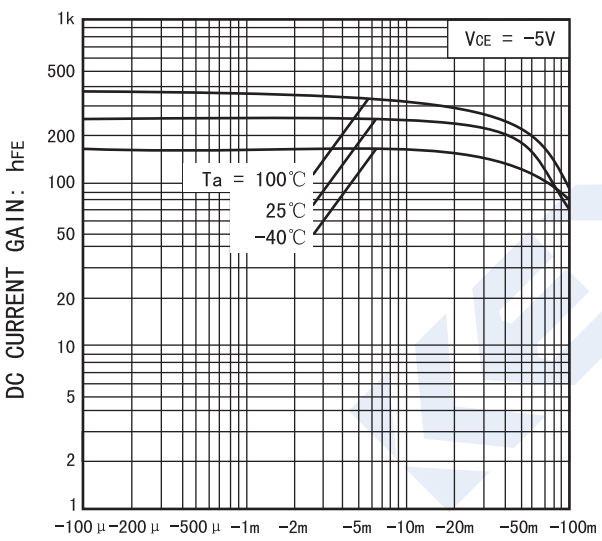
■ Equivalent Circuit

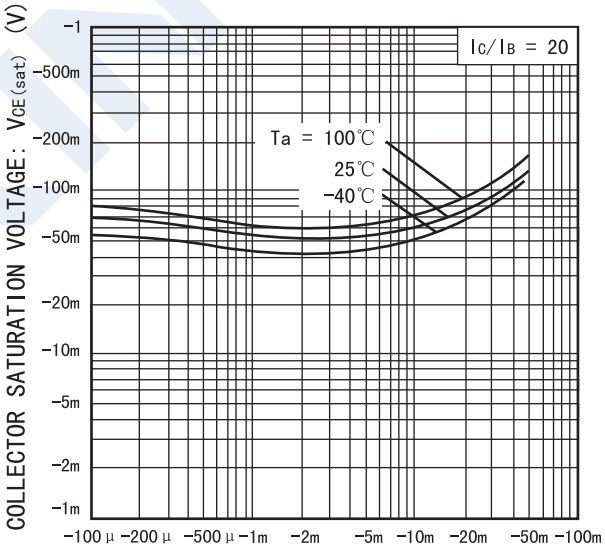


R_1 = 10kΩ

■ Electrical Characteristics Curves



DC current gain vs.collector current



Collector-emitter saturation voltage vs.collector current