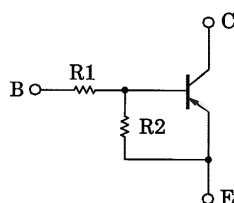


Digital PNP Transistors

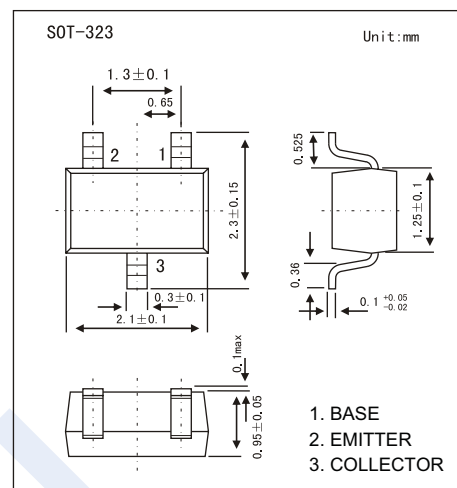
RN2301~RN2306

■ Features

- With built-in bias resistors.
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- Complementary to RN1301~1306



Type No.	R1(kΩ)	R2(kΩ)
RN2301	4.7	4.7
RN2302	10	10
RN2303	22	22
RN2304	47	47
RN2305	2.2	47
RN2306	4.7	47

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter		Symbol	Rating	Unit
Collector - Base Voltage	RN2301~2306	V_{CB0}	-50	V
Collector - Emitter Voltage		V_{CE0}	-50	
Emitter - Base Voltage	RN2301~2304	V_{EB0}	-10	
	RN2305, 2306		-5	
Collector Current	RN2301~2306	I_C	-100	mA
Collector Power Dissipation		P_C	100	mW
Junction Temperature		T_J	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-55 to 150	

Digital PNP Transistors

RN2301~RN2306

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter		Symbol	Test Conditions	Min	Typ	Max	Unit
Collector cut-off current	RN2301~2306	I_{CBO}	$V_{CB} = -50\text{ V}, I_E = 0$			-100	nA
		I_{CEO}	$V_{CE} = -50\text{ V}, I_B = 0$			-500	
Emitter cut-off current	RN2301	I_{EBO}	$V_{EB} = -10\text{ V}, I_C = 0$	-0.82		-1.52	mA
	RN2302			-0.38		-0.71	
	RN2303			-0.17		-0.33	
	RN2304			-0.082		-0.15	
	RN2305		$V_{EB} = -5\text{ V}, I_C = 0$	-0.078		-0.145	
	RN2306			-0.074		0.138	
DC current gain	RN2301	h_{FE}	$V_{CE} = -5\text{ V}, I_C = -10\text{ mA}$	30			
	RN2302			50			
	RN2303			70			
	RN2304			80			
	RN2305			80			
	RN2306			80			
Collector-emitter saturation voltage	RN2301~2306	$V_{CE(sat)}$	$I_C = -5\text{ mA}, I_B = -0.25\text{ mA}$			-0.3	V
Input voltage (ON)	RN2301	$V_{I(ON)}$	$V_{CE} = -0.2\text{ V}, I_C = -5\text{ mA}$	-1.1		-2.0	V
	RN2302			-1.2		-2.4	
	RN2303			-1.3		-3.0	
	RN2304			-1.5		-5.0	
	RN2305			-0.6		-1.1	
	RN2306			-0.7		-1.3	
Input voltage (OFF)	RN2301~2304	$V_{I(OFF)}$	$V_{CE} = -5\text{ V}, I_C = -0.1\text{ mA}$	-1.0		-1.5	V
	RN2305, 2306			-0.5		-0.8	
Translation frequency	RN2301~2306	f_T	$V_{CE} = -10\text{ V}, I_C = -5\text{ mA}$		200		MHz
Collector output capacitance	RN2301~2306	C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$		3	6	pF
Input resistor	RN2301	R1		3.29	4.7	6.11	k Ω
	RN2302			7	10	13	
	RN2303			15.4	22	28.6	
	RN2304			32.9	47	61.1	
	RN2305			1.54	2.2	2.86	
	RN2306			3.29	4.7	6.11	
Resistor ratio	RN2301~2304	R1/R2		0.9	1.0	1.1	
	RN2305			0.0421	0.0468	0.0515	
	RN2306			0.09	0.1	0.11	

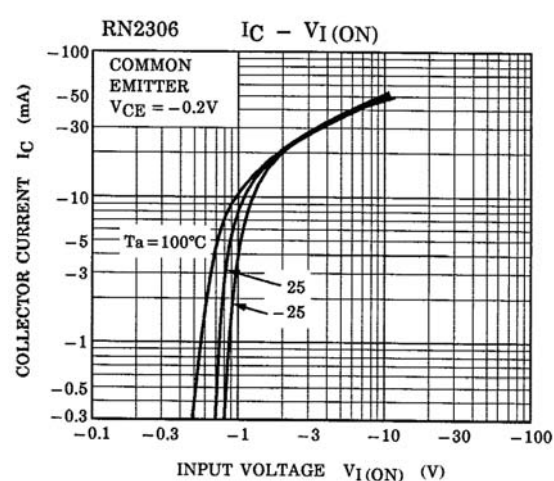
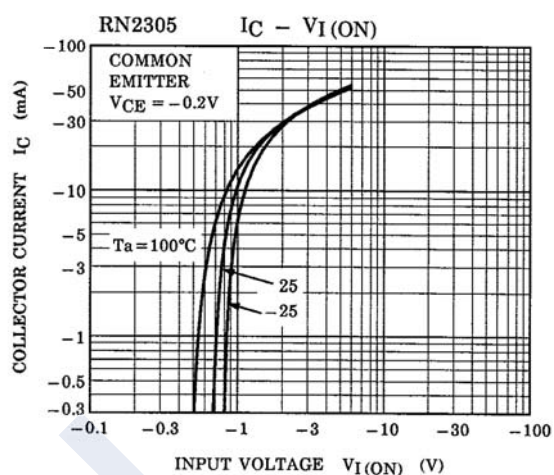
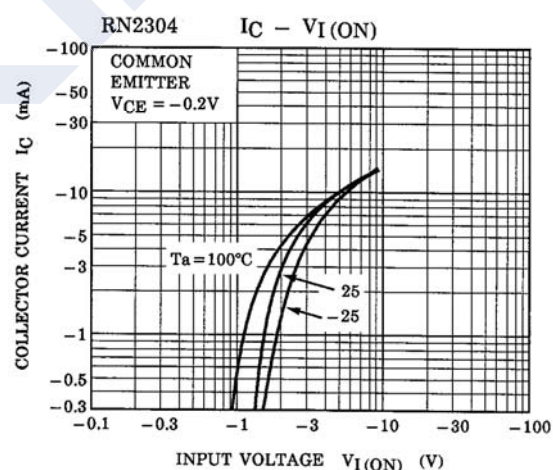
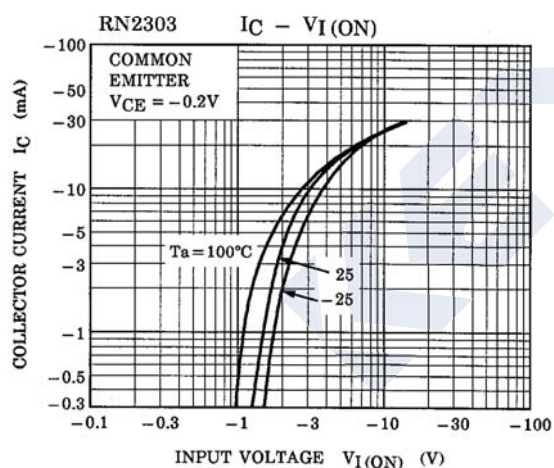
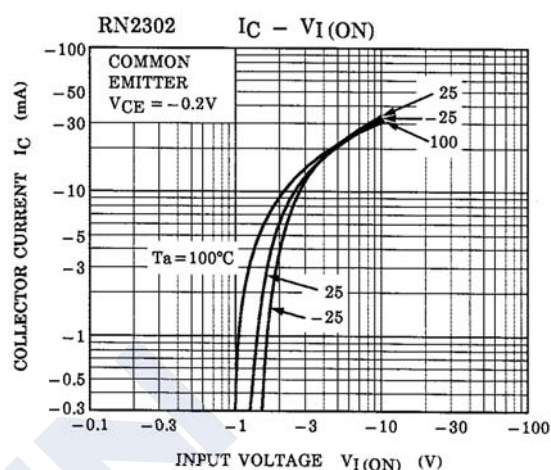
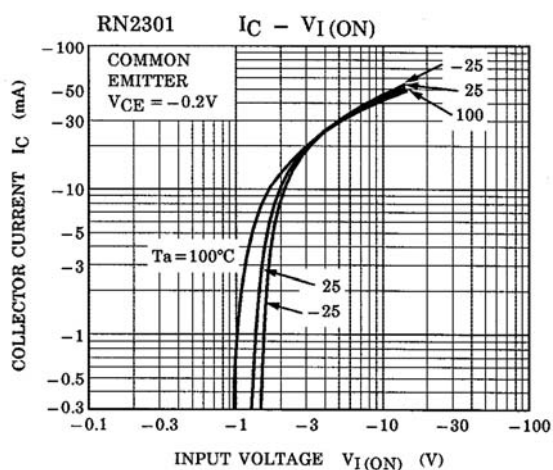
■ Marking

Type No.	RN2301	RN2302	RN2303	RN2304	RN2305	RN2306
Marking	YA	YB	YC	YD	YE	YF

Digital PNP Transistors

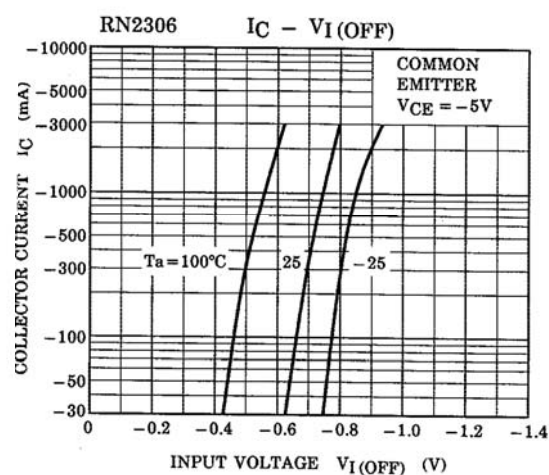
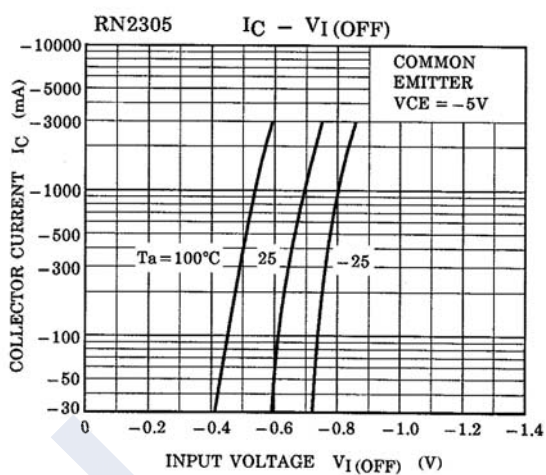
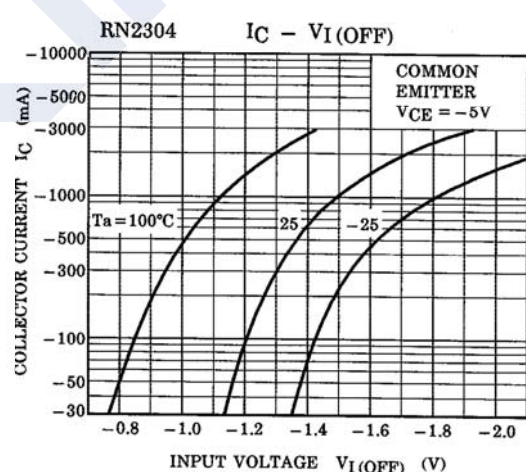
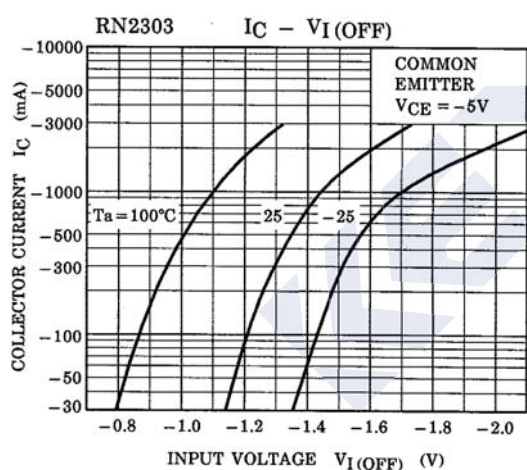
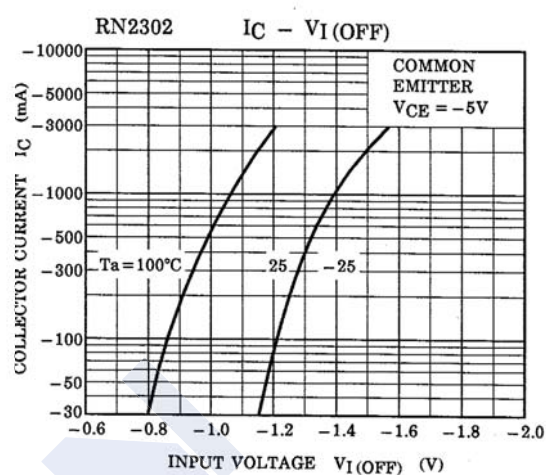
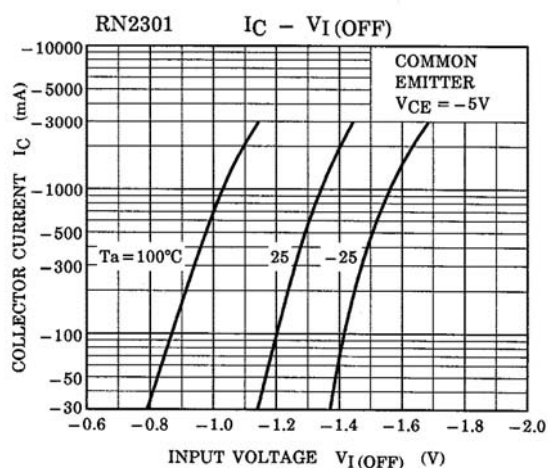
RN2301~RN2306

■ Typical Characteristics



Digital PNP Transistors

RN2301~RN2306



Digital PNP Transistors

RN2301~RN2306

