

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

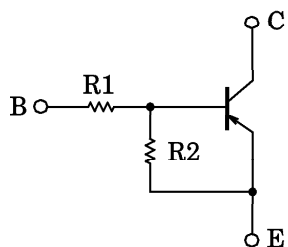
RN2701, RN2702, RN2703, RN2704, RN2705, RN2706

SWITCHING, INVERTER CIRCUIT, INTERFACE CIRCUIT
AND DRIVER CIRCUIT APPLICATIONS.

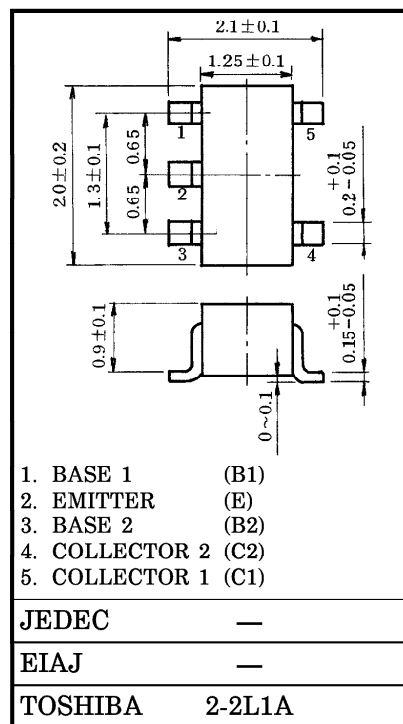
Unit in mm

- Including Two Devices in USV (Ultra Super Mini Type with 5 leads)
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- Complementary to RN1701~RN1706

EQUIVALENT CIRCUIT AND BIAS RESISTOR VALUES

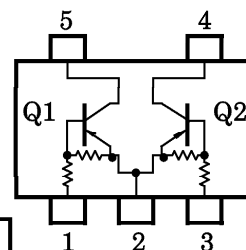


TYPE No.	R1 (kΩ)	R2 (kΩ)
RN2701	4.7	4.7
RN2702	10	10
RN2703	22	22
RN2704	47	47
RN2705	2.2	47
RN2706	4.7	47



Weight : 6.2mg

EQUIVALENT CIRCUIT (TOP VIEW)



MAXIMUM RATINGS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	RN2701~2706	VCBO	-50	V
Collector-Emitter Voltage		VCEO	-50	V
Emitter-Base Voltage	RN2701~2704	VEBO	-10	V
	RN2705, 2706		-5	
Collector Current	RN2701~2706	IC	-100	mA
Collector Power Dissipation		PC *	200	mW
Junction Temperature		Tj	150	°C
Storage Temperature Range		Tstg	-55~150	°C

* : Total Rating

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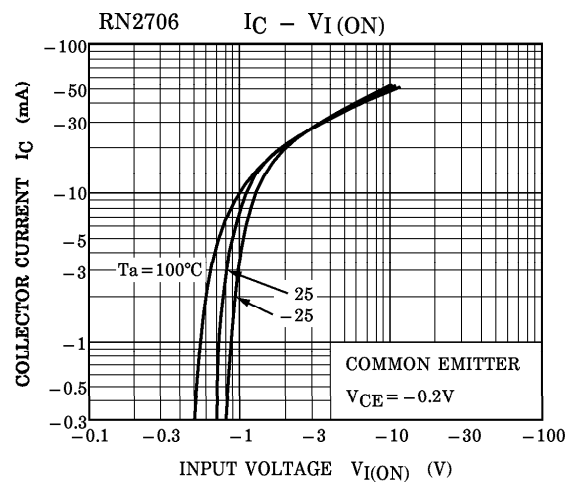
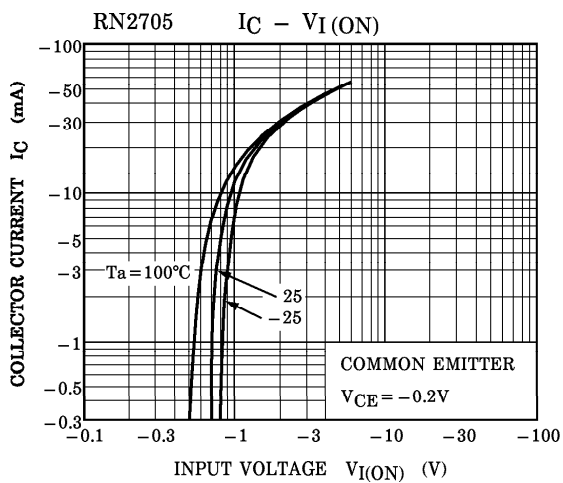
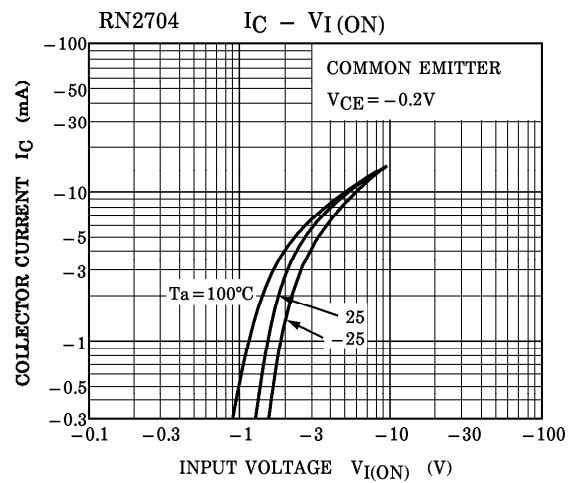
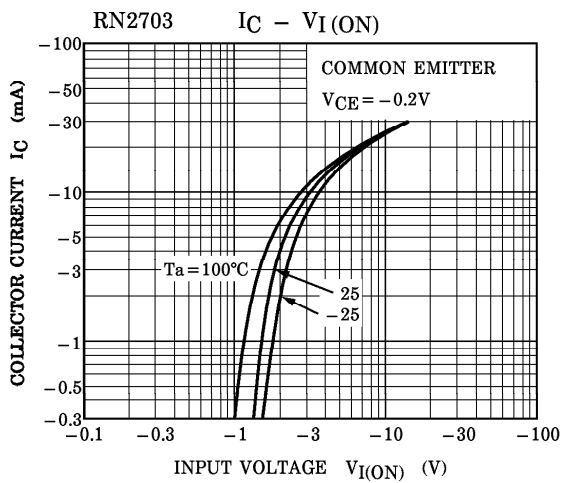
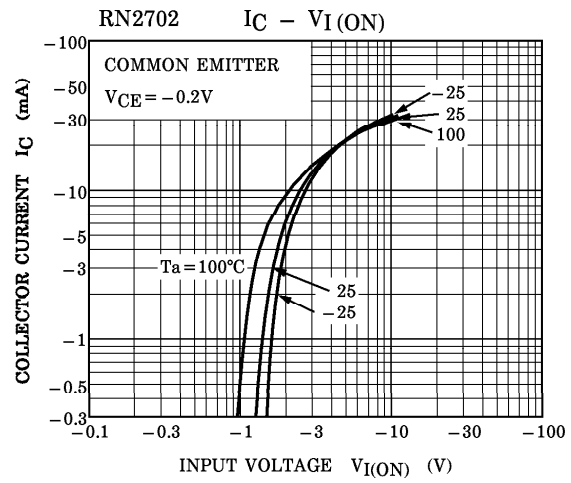
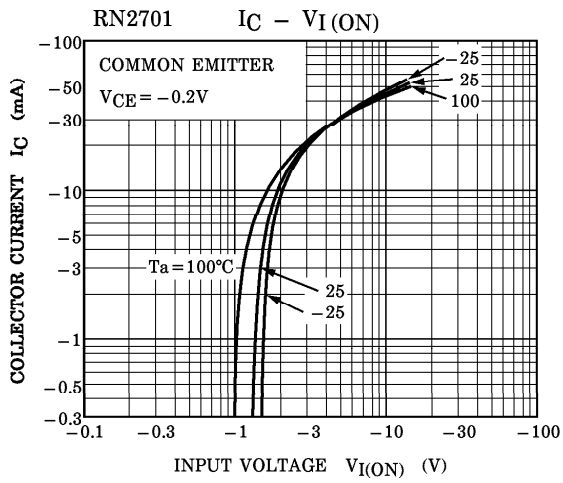
ELECTRICAL CHARACTERISTICS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	RN2701~2706	I_{CBO}	$V_{CB} = -50V, I_E = 0$	—	—	-100	nA
		I_{CEO}	$V_{CE} = -50V, I_B = 0$	—	—	-500	
Emitter Cut-off Current	RN2701	I_{EBO}	$V_{EB} = -10V, I_C = 0$	-0.82	—	-1.52	mA
	RN2702			-0.38	—	-0.71	
	RN2703			-0.17	—	-0.33	
	RN2704		-0.082	—	-0.15		
	RN2705		$V_{EB} = -5V, I_C = 0$	-0.078	—	-0.145	
	RN2706			-0.074	—	-0.138	
DC Current Gain	RN2701	h_{FE}	$V_{CE} = -5V, I_C = -10mA$	30	—	—	
	RN2702			50	—	—	
	RN2703			70	—	—	
	RN2704			80	—	—	
	RN2705			80	—	—	
	RN2706			80	—	—	
Collector-Emitter Saturation Voltage	RN2701~2706	$V_{CE(sat)}$	$I_C = -5mA, I_B = -0.25mA$	—	-0.1	-0.3	V
Input Voltage (ON)	RN2701	$V_{I(ON)}$	$V_{CE} = -0.2V, I_C = -5mA$	-1.1	—	-2.0	V
	RN2702			-1.2	—	-2.4	
	RN2703			-1.3	—	-3.0	
	RN2704			-1.5	—	-5.0	
	RN2705			-0.6	—	-1.1	
	RN2706			-0.7	—	-1.3	
Input Voltage (OFF)	RN2701~2704 RN2705, 2706	$V_{I(OFF)}$	$V_{CE} = -5V, I_C = -0.1mA$	-1.0 -0.5	—	-1.5 -0.8	V
Transition Frequency	RN2701~2706	f_T	$V_{CE} = -10V, I_C = -5mA$	—	200	—	MHz
Collector Output Capacitance	RN2701~2706	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	3	6	pF
Input Resistor	RN2701	R1		3.29	4.7	6.11	kΩ
	RN2702			7	10	13	
	RN2703			15.4	22	28.6	
	RN2704			32.9	47	61.1	
	RN2705			1.54	2.2	2.86	
	RN2706			3.29	4.7	6.11	
Resistor Ratio	RN2701~2704	R1 / R2		0.9	1.0	1.1	
	RN2705			0.0421	0.0468	0.0515	
	RN2706			0.09	0.1	0.11	

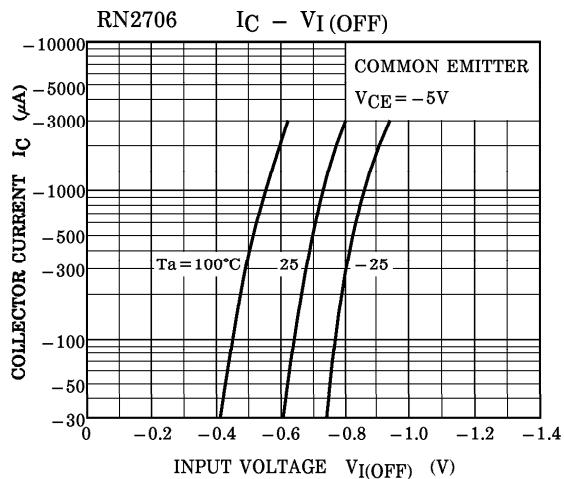
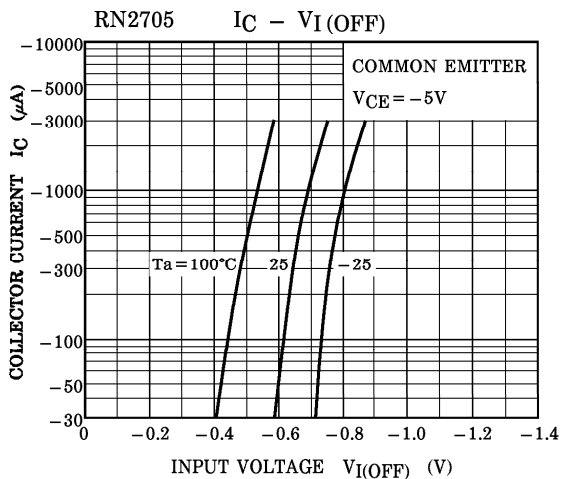
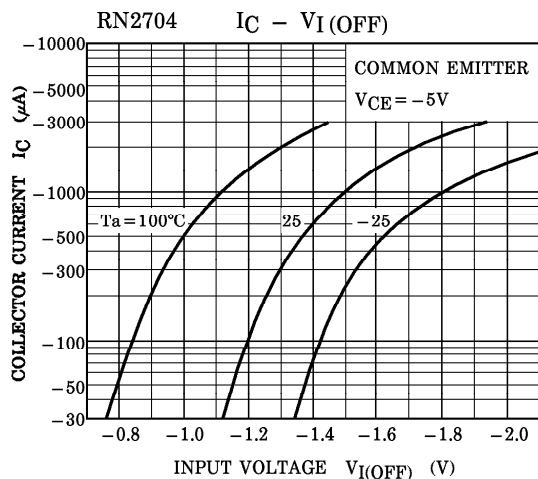
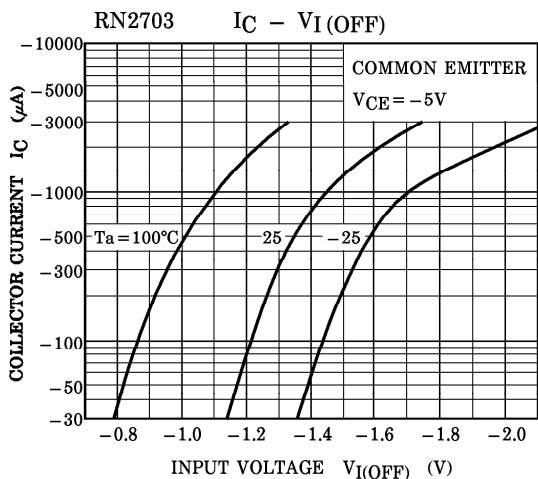
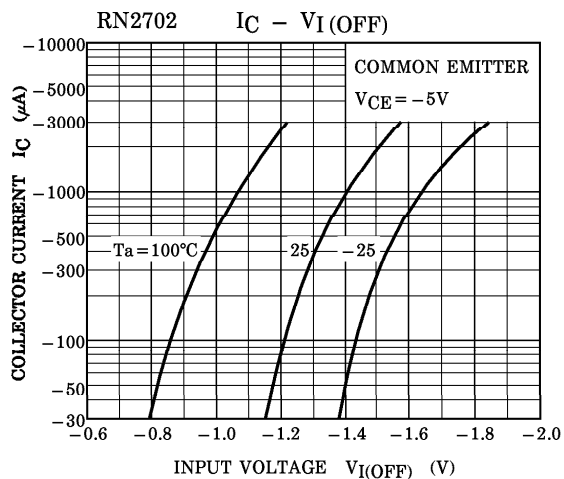
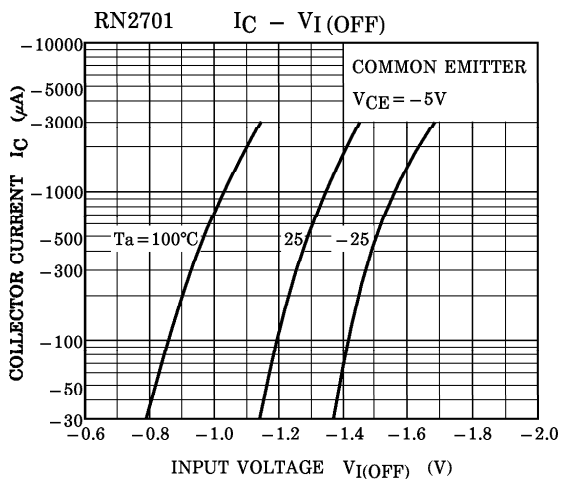
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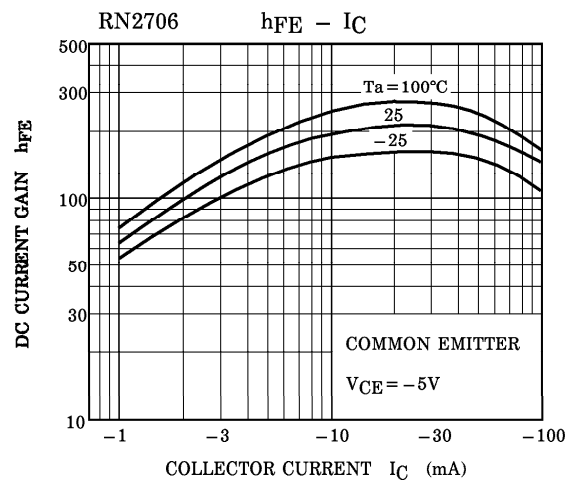
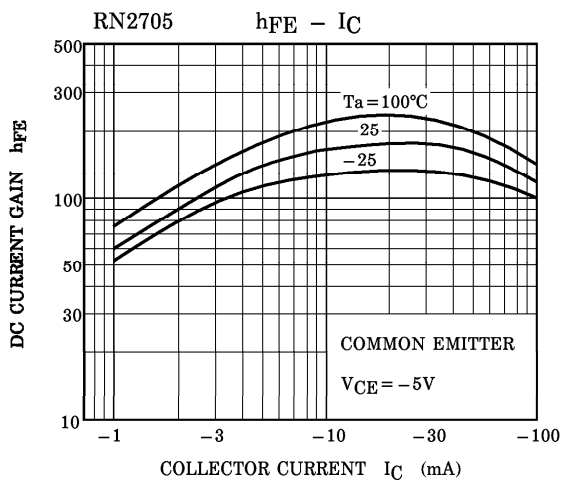
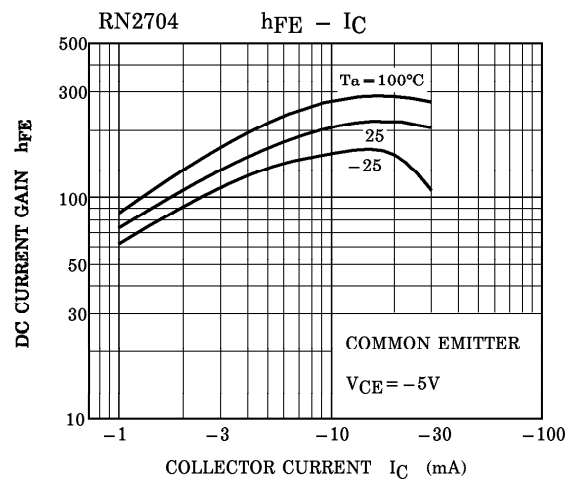
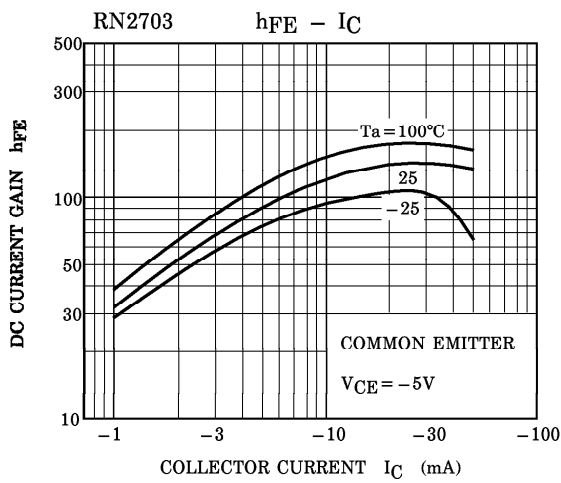
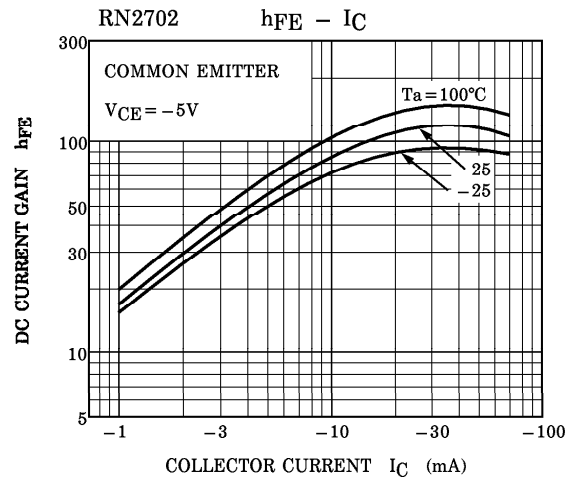
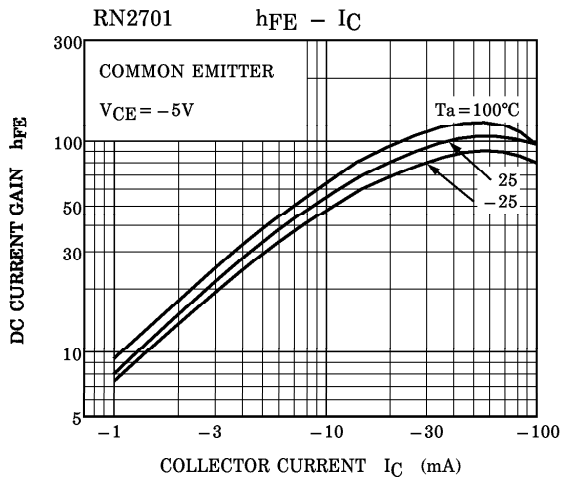
(Q1, Q2 COMMON)

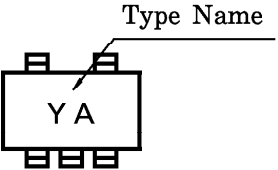
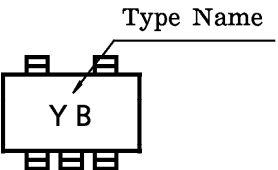
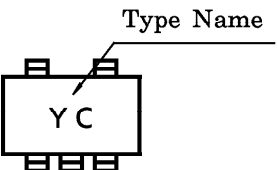
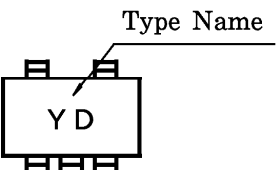
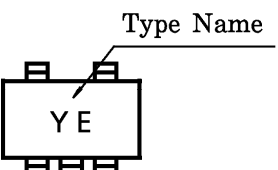


(Q1, Q2 COMMON)



(Q1, Q2 COMMON)



TYPE NAME	MARKING
RN2701	
RN2702	
RN2703	
RN2704	
RN2705	
RN2706	