

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

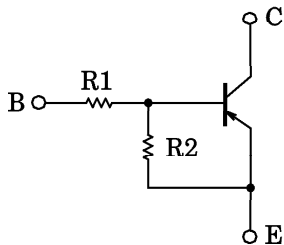
RN2707, RN2708, RN2709

Unit in mm

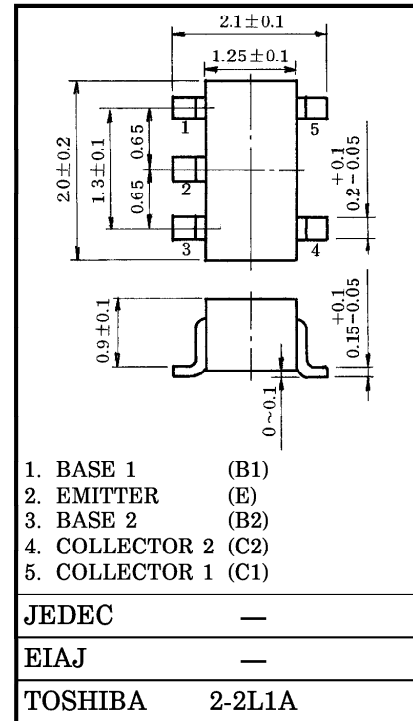
SWITCHING, INVERTER CIRCUIT, INTERFACE CIRCUIT
AND DRIVER CIRCUIT APPLICATIONS.

- 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 RN1707~RN1709

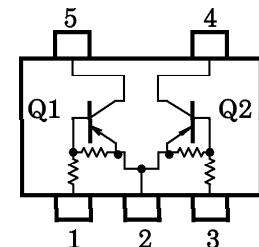
EQUIVALENT CIRCUIT AND BIAS RESISTOR VALUES



TYPE No.	R1 (kΩ)	R2 (kΩ)
RN2707	10	47
RN2708	22	47
RN2709	47	22



EQUIVALENT CIRCUIT (TOP VIEW)



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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	RN2707~2709	VCBO	-50	V
Collector-Emitter Voltage		VCEO	-50	V
Emitter-Base Voltage	RN2707	VEBO	-6	V
	RN2708		-7	
	RN2709		-15	
Collector Current	RN2707~2709	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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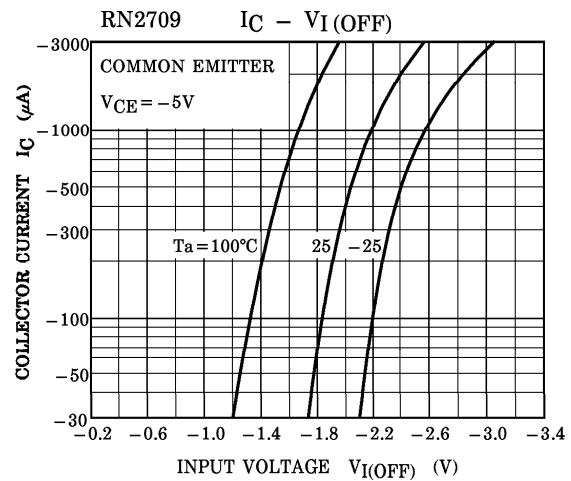
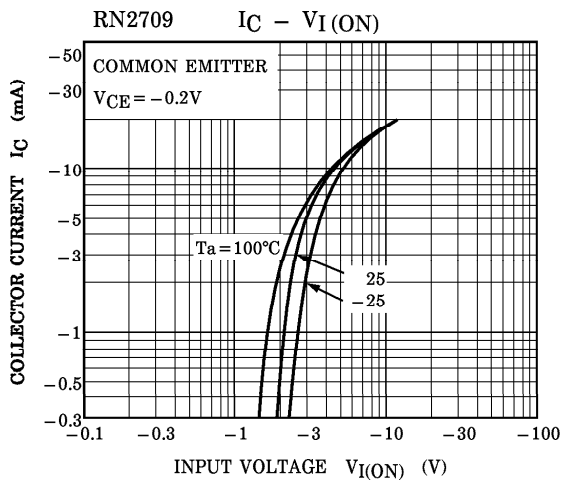
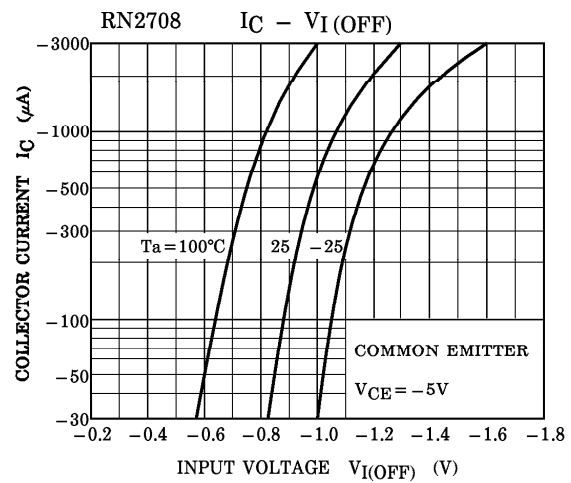
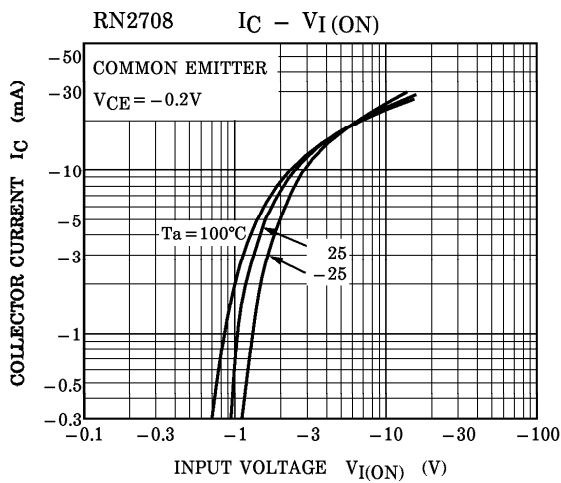
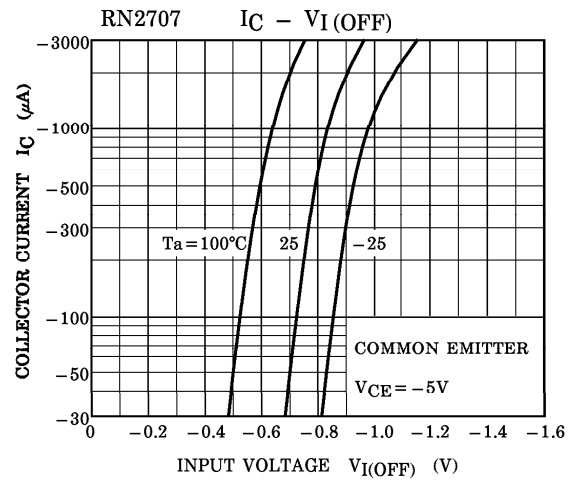
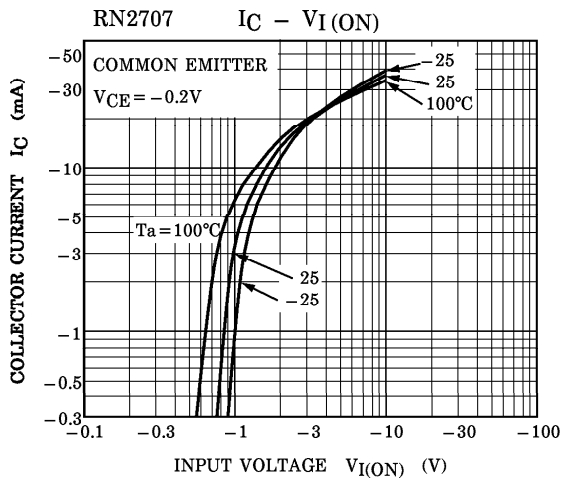
ELECTRICAL CHARACTERISTICS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current	RN2707~2709	ICBO	V _{CB} = -50V, I _E = 0	—	—	-100	nA	
		ICEO	V _{CE} = -50V, I _B = 0	—	—	-500	nA	
Emitter Cut-off Current	RN2707	IEBO	V _{EB} = -6V, I _C = 0	-0.081	—	-0.15	mA	
	RN2708			V _{EB} = -7V, I _C = 0	-0.078	—		-0.145
	RN2709			V _{EB} = -15V, I _C = 0	-0.167	—		-0.311
DC Current Gain	RN2707	h _{FE}	V _{CE} = -5V, I _C = -10mA	80	—	—		
	RN2708			80	—	—		
	RN2709			70	—	—		
Collector-Emitter Saturation Voltage	RN2707~2709	V _{CE(sat)}	I _C = -5mA, I _B = -0.25mA	—	-0.1	-0.3	V	
Input Voltage (ON)	RN2707	V _{I(ON)}	V _{CE} = -0.2V, I _C = -5mA	-0.7	—	-1.8	V	
	RN2708			-1.0	—	-2.6		
	RN2709			-2.2	—	-5.8		
Input Voltage (OFF)	RN2707	V _{I(OFF)}	V _{CE} = -5V, I _C = -0.1mA	-0.5	—	-1.0	V	
	RN2708			-0.6	—	-1.16		
	RN2709			-1.5	—	-2.6		
Transition Frequency	RN2707~2709	f _T	V _{CE} = -10V, I _C = -5mA	—	200	—	MHz	
Collector Output Capacitance	RN2707~2709	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz	—	3	6	pF	
Input Resistor	RN2707	R1		7	10	13	kΩ	
	RN2708			15.4	22	28.6		
	RN2709			32.9	47	61.1		
Resistor Ratio	RN2707	R1 / R2		0.191	0.213	0.232		
	RN2708			0.421	0.468	0.515		
	RN2709			1.92	2.14	2.35		

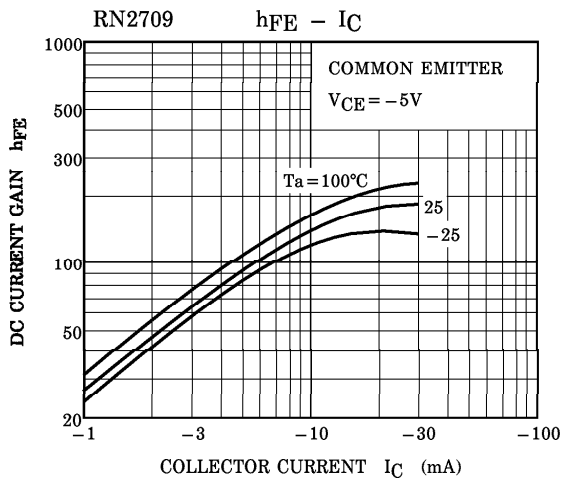
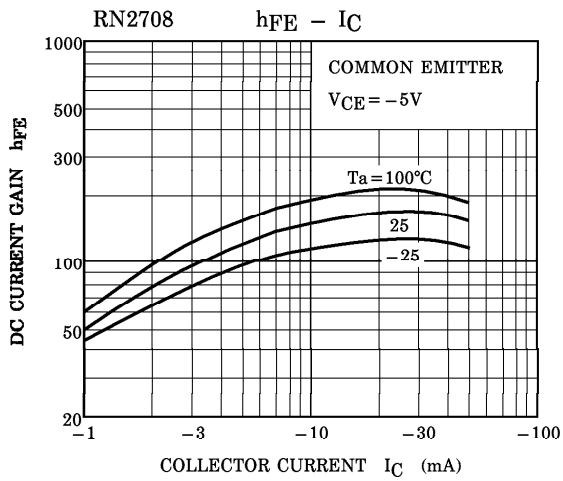
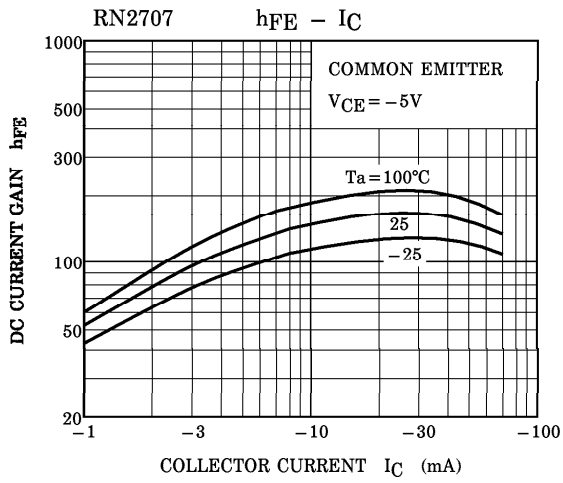
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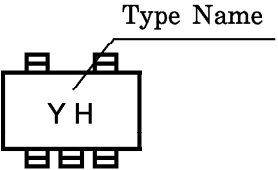
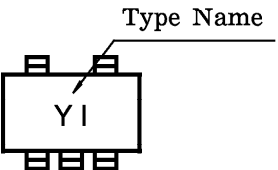
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(Q1, Q2 COMMON)



(Q1, Q2 COMMON)



TYPE NAME	MARKING
RN2707	
RN2708	
RN2709	