

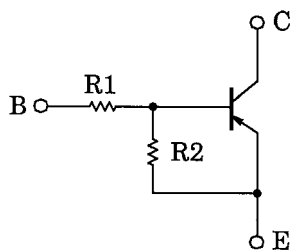
TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

RN2607, RN2608, RN2609

Switching, Inverter Circuit, Interface Circuit
And Driver Circuit Applications

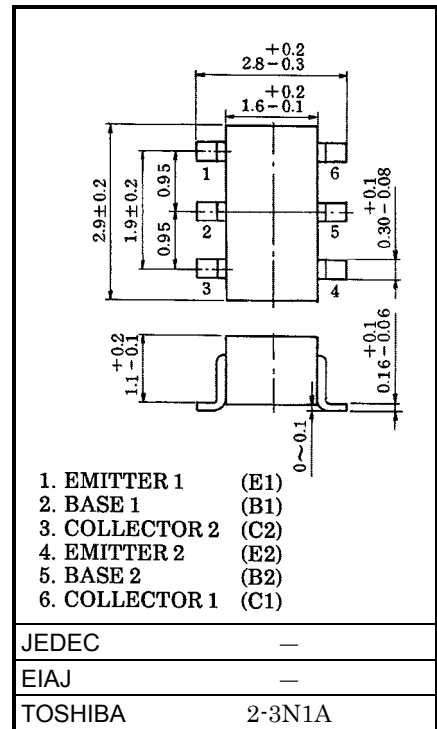
- Including two devices in SM6 (super mini type with 6 leads)
- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- Complementary to RN1607~RN1609

Equivalent Circuit and Bias Resistor Values



Type No.	R1 (kΩ)	R2 (kΩ)
RN2607	10	47
RN2608	22	47
RN2609	47	22

Unit in mm



1. EMITTER 1 (E1)
2. BASE 1 (B1)
3. COLLECTOR 2 (C2)
4. EMITTER 2 (E2)
5. BASE 2 (B2)
6. COLLECTOR 1 (C1)

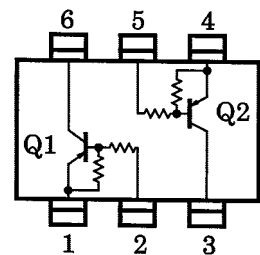
Weight: 0.015g

Equivalent Circuit (Top View)

Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit	
Collector-base voltage	RN2607~RN2609	V_{CB0}	-50	V
Collector-emitter voltage		V_{CE0}	-50	V
Emitter-base voltage	RN2607	V_{EB0}	-6	V
	RN2608		-7	
	RN2609		-15	
Collector current	I_C	-100	mA	
Collector power dissipation	P_C^*	300	mW	
Junction temperature	T_j	150	°C	
Storage temperature range	T_{stg}	-55~150	°C	

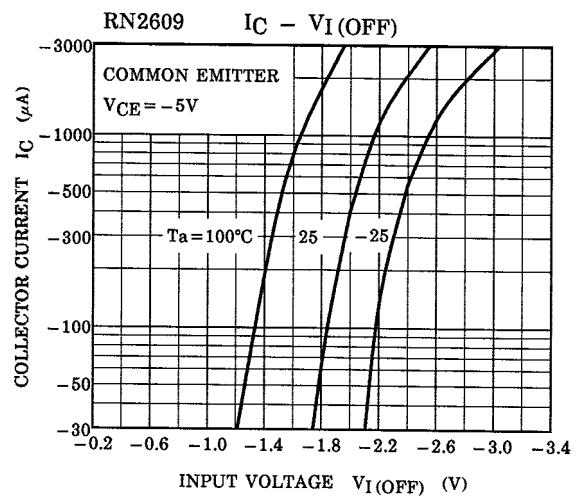
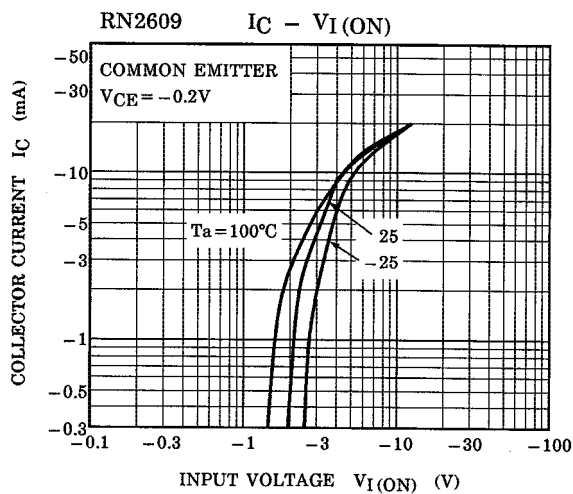
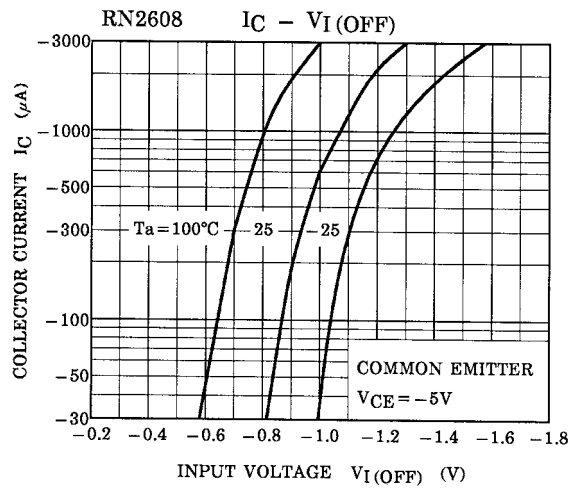
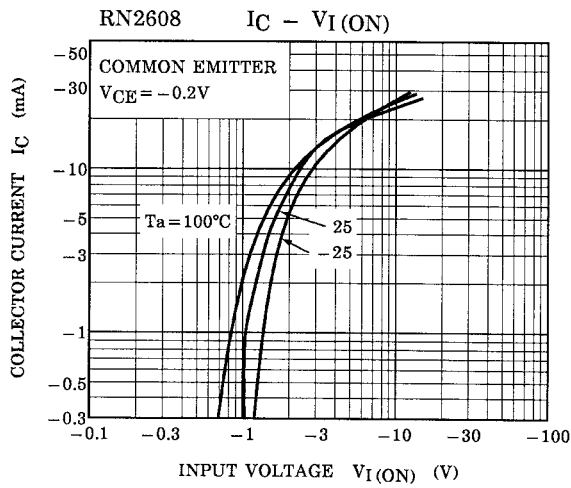
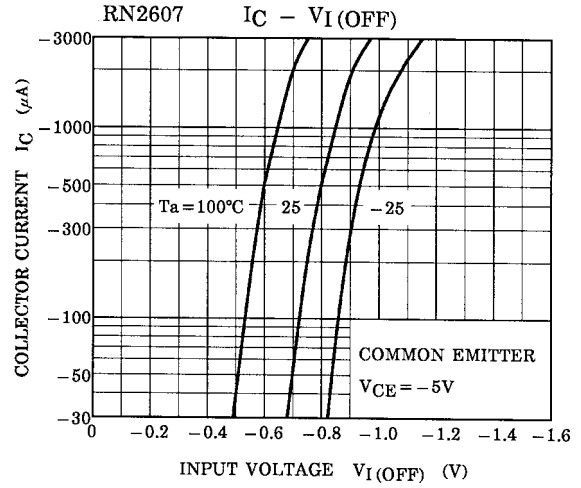
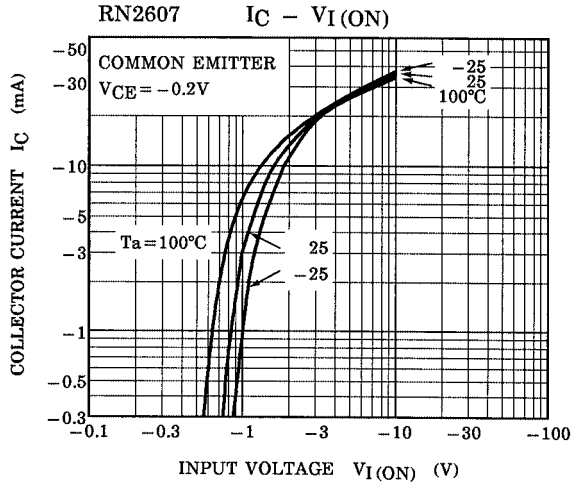
* Total rating



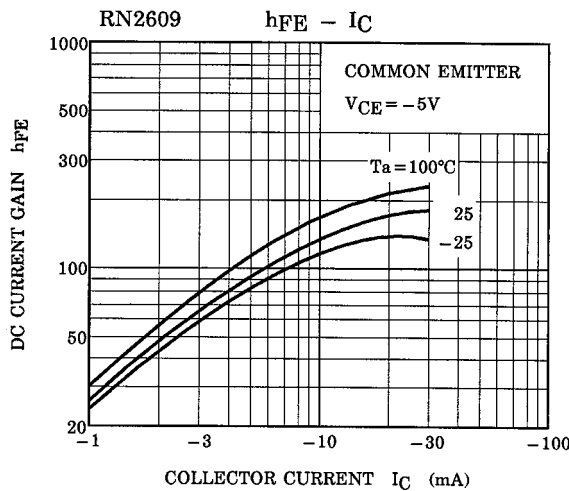
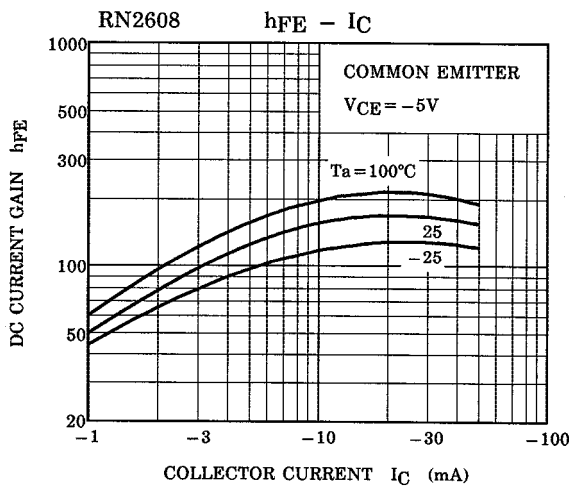
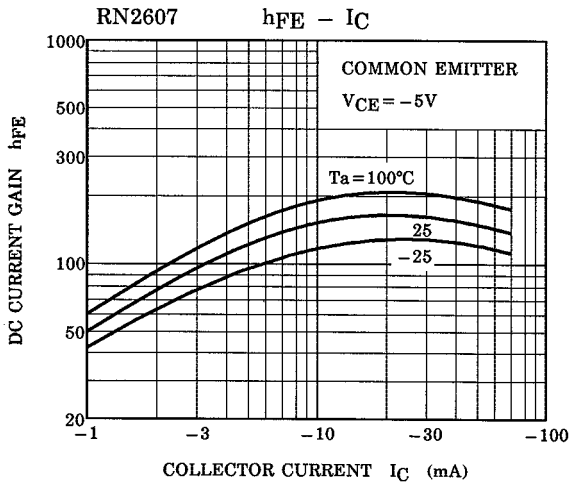
Electrical Characteristics (Ta = 25°C) (Q1, Q2 Common)

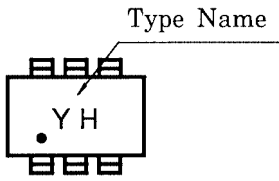
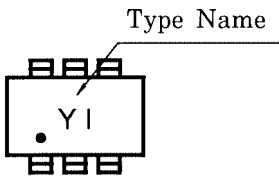
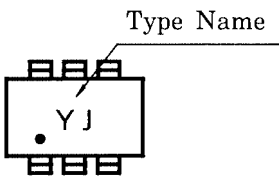
Characteristic		Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	RN2607~RN2609	I_{CBO}	—	$V_{CB} = -50V, I_E = 0$	—	—	-100	nA
		I_{CEO}	—	$V_{CE} = -50V, I_B = 0$	—	—	-500	nA
Emitter cut-off current	RN2607	I_{EBO}	—	$V_{EB} = -6V, I_C = 0$	-0.081	—	-0.15	mA
	RN2608		—	$V_{EB} = -7V, I_C = 0$	-0.078	—	-0.145	
	RN2609		—	$V_{EB} = -15V, I_C = 0$	-0.167	—	-0.311	
DC current gain	RN2607	h_{FE}	—	$V_{CE} = -5V, I_C = -10mA$	80	—	—	—
	RN2608		—		80	—	—	
	RN2609		—		70	—	—	
Collector-emitter saturation voltage	RN2607~RN2609	$V_{CE(sat)}$	—	$I_C = -5mA, I_B = -0.25mA$	—	-0.1	-0.3	V
Input voltage (ON)	RN2607	$V_{I(ON)}$	—	$V_{CE} = -0.2V, I_C = -5mA$	-0.7	—	-1.8	V
	RN2608		—		-1.0	—	-2.6	
	RN2609		—		-2.2	—	-5.8	
Input voltage (OFF)	RN2607	$V_{I(OFF)}$	—	$V_{CE} = -5V, I_C = -0.1mA$	-0.5	—	-1.0	V
	RN2608		—		-0.6	—	-1.16	
	RN2609		—		-1.5	—	-2.6	
Translation frequency	RN2607~RN2609	f_T	—	$V_{CE} = -10V, I_C = -5mA$	—	200	—	MHz
Collector output capacitance	RN2607~RN2609	C_{ob}	—	$V_{CB} = -10V, I_E = 0$ $f = 1MHz$	—	3	6	pF
Input resistor	RN2607	R1	—	—	7	10	13	kΩ
	RN2608		—		15.4	22	28.6	
	RN2609		—		32.9	47	61.1	
Resistor ratio	RN2607	R1/R2	—	—	0.191	0.213	0.232	—
	RN2608		—		0.421	0.468	0.515	
	RN2609		—		1.92	2.14	2.35	

(Q1, Q2 Common)



(Q1, Q2 Common)



Type Name	Marking
RN2607	 A schematic diagram of a component marking. It shows a rectangular box with a dot in the lower-left corner. Inside the box, the characters 'YH' are printed. Above the box, there are two sets of three small rectangular marks, one on the top and one on the bottom. A line points from the text 'Type Name' to the top-right corner of the box.
RN2608	 A schematic diagram of a component marking. It shows a rectangular box with a dot in the lower-left corner. Inside the box, the characters 'YI' are printed. Above the box, there are two sets of three small rectangular marks, one on the top and one on the bottom. A line points from the text 'Type Name' to the top-right corner of the box.
RN2609	 A schematic diagram of a component marking. It shows a rectangular box with a dot in the lower-left corner. Inside the box, the characters 'YJ' are printed. Above the box, there are two sets of three small rectangular marks, one on the top and one on the bottom. A line points from the text 'Type Name' to the top-right corner of the box.

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