

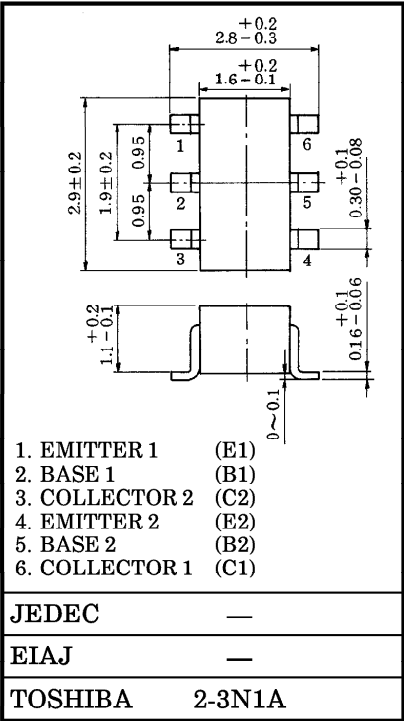
TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

RN2607, RN2608, RN2609

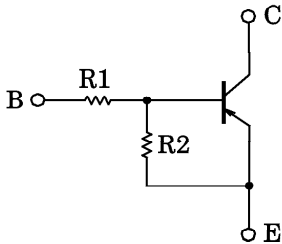
SWITCHING, INVERTER CIRCUIT, INTERFACE CIRCUIT AND DRIVER
CIRCUIT APPLICATIONS.

- 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

Unit in mm



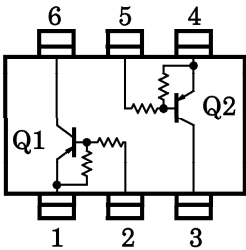
EQUIVALENT CIRCUIT AND BIAS RESISTOR VALUES



TYPE NO.	R1 (kΩ)	R2 (kΩ)
RN2607	10	47
RN2608	22	47
RN2609	47	22

Weight : 0.015g

EQUIVALENT CIRCUIT (TOP VIEW)



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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	RN2607~2609	VCBO	-50	V
Collector-Emitter Voltage		VCEO	-50	V
Emitter-Base Voltage	RN2607	VEBO	-6	V
	RN2608		-7	
	RN2609		-15	
Collector Current	RN2607~2609	IC	-100	mA
Collector Power Dissipation		PC *	300	mW
Junction Temperature		Tj	150	°C
Storage Temperature Range		Tstg	-55~150	°C

* : Total Rating

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● TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.

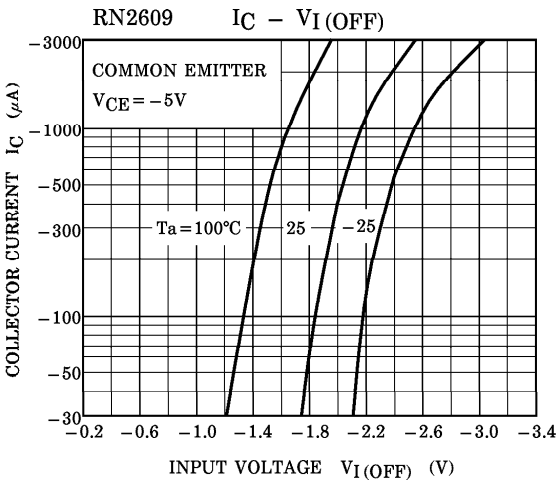
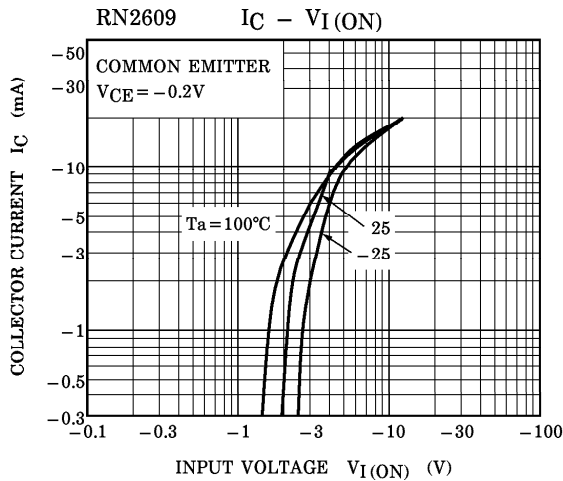
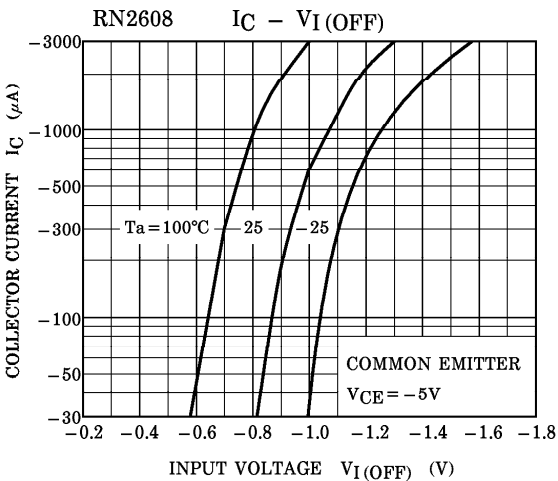
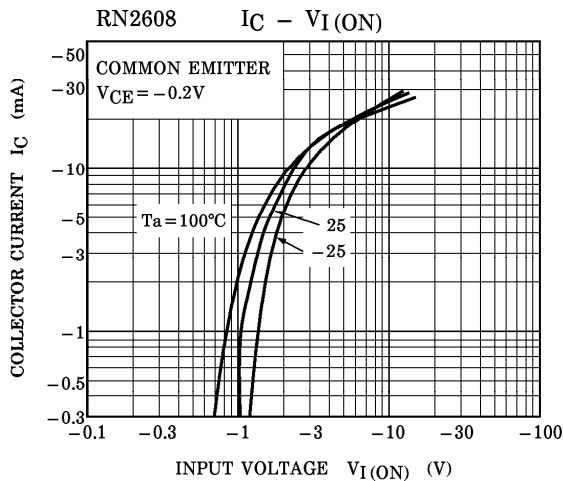
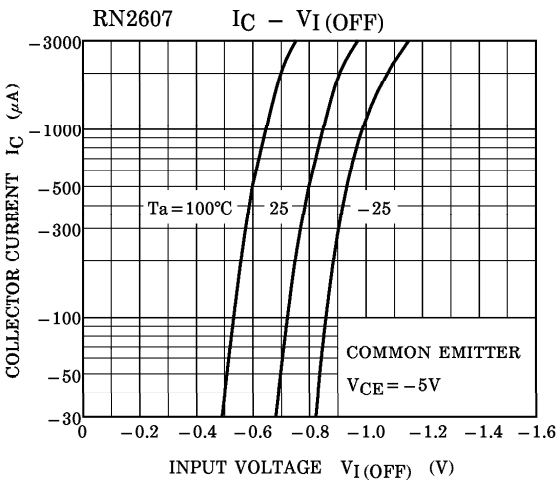
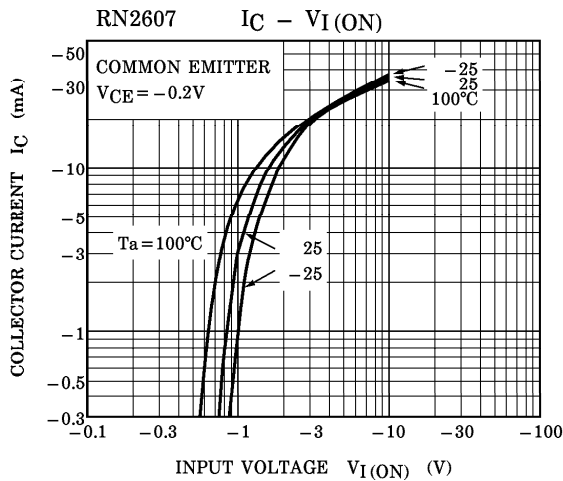
ELECTRICAL CHARACTERISTICS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	RN2607~2609	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	RN2607~2609	$V_{CE(sat)}$	$I_C = -5mA, I_B = -0.25mA$	—	-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	
Transition Frequency	RN2607~2609	f_T	$V_{CE} = -10V, I_C = -5mA$	—	200	—	MHz
Collector Output Capacitance	RN2607~2609	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	

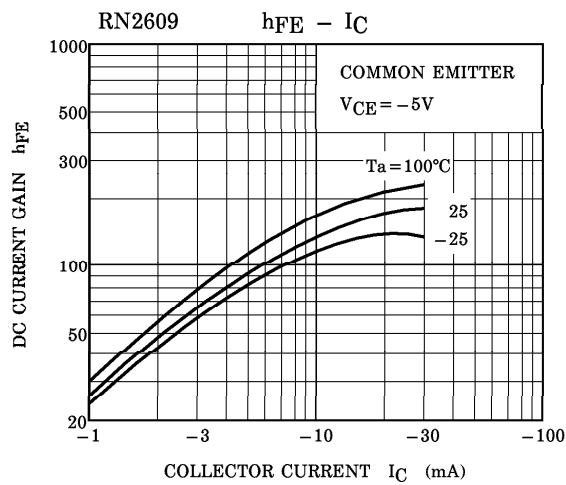
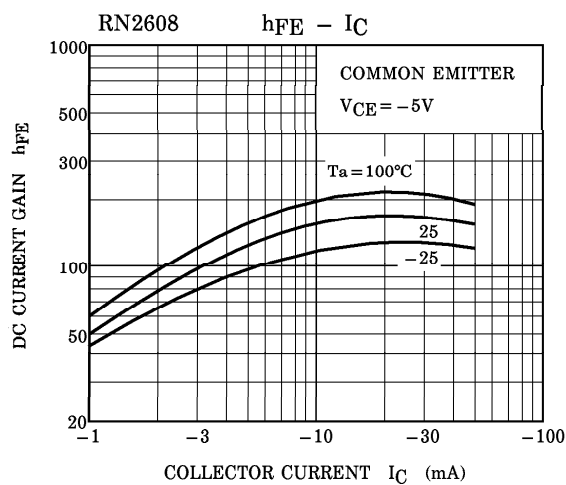
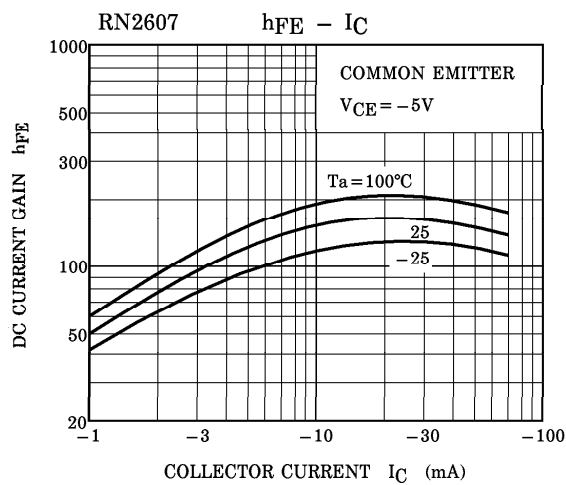
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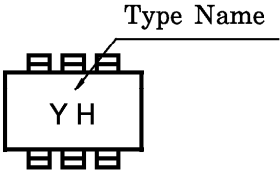
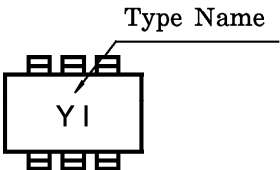
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(Q1, Q2 COMMON)



(Q1, Q2 COMMON)



TYPE NAME	MARKING
RN2607	
RN2608	
RN2609	