

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

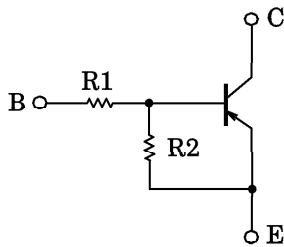
RN2507, RN2508, RN2509

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

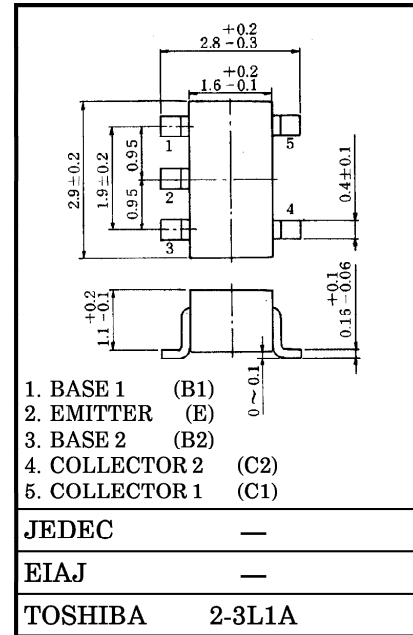
Unit in mm

- Including Two Devices in SMV (Super Mini Type with 5 leads)
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- Complementary to RN1507~RN1509

EQUIVALENT CIRCUIT AND BIAS RESISTOR VALUES

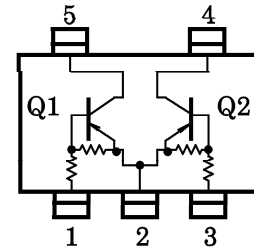


TYPE No.	R1 (kΩ)	R2 (kΩ)
RN2507	10	47
RN2508	22	47
RN2509	47	22



Weight : 0.014g

EQUIVALENT CIRCUIT (TOP VIEW)



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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	RN2507~2509	VCBO	-50 V
Collector-Emitter Voltage		VCEO	-50 V
Emitter-Base Voltage	RN2507	VEBO	-6 V
	RN2508		-7 V
	RN2509		-15 V
Collector Current	RN2507~2509	IC	-100 mA
Collector Power Dissipation		PC*	300 mW
Junction Temperature		Tj	150 °C
Storage Temperature Range		Tstg	-55~150 °C

* : Total Rating

961001EAA2

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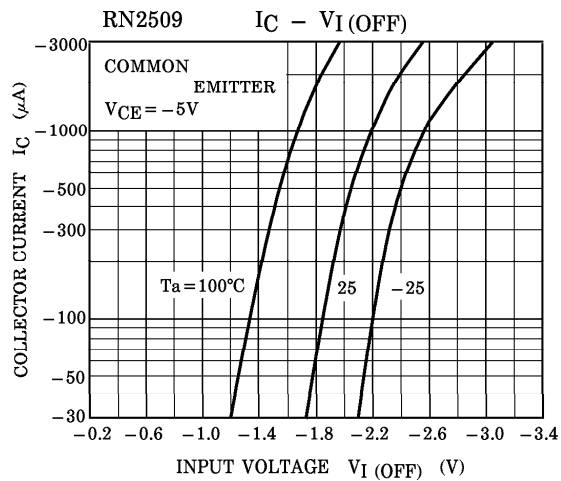
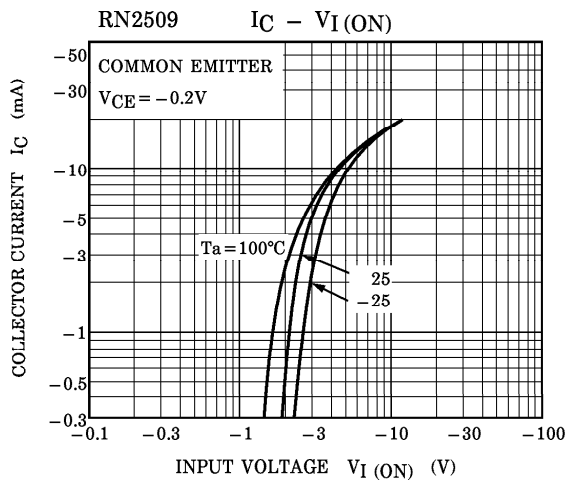
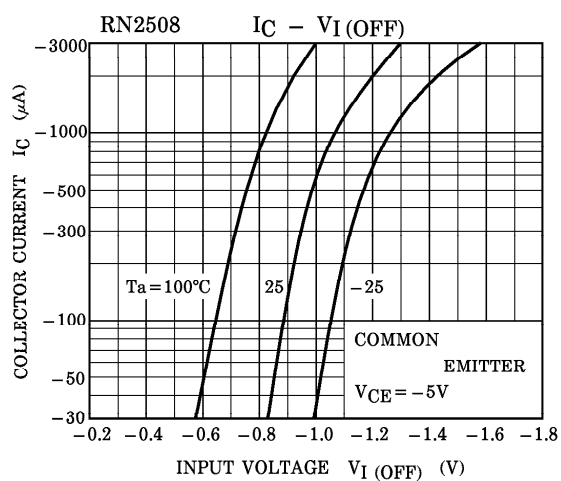
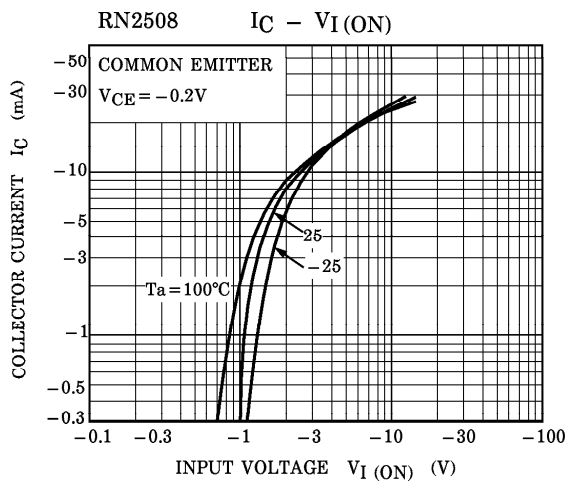
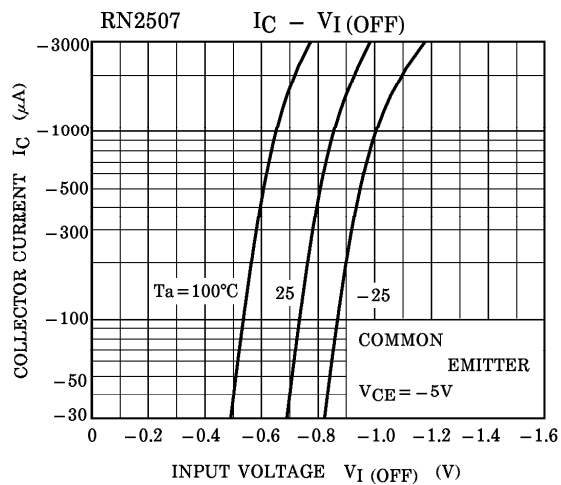
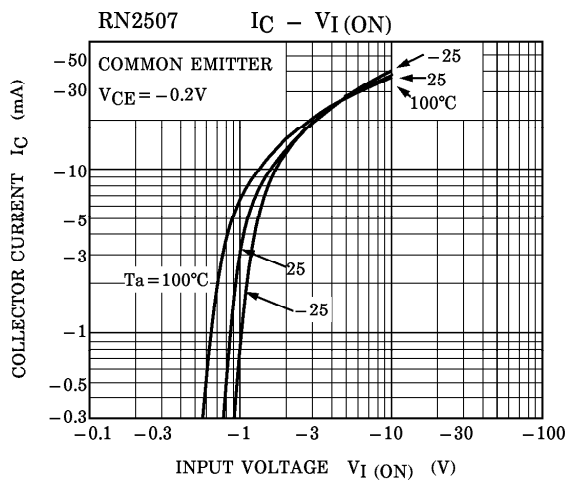
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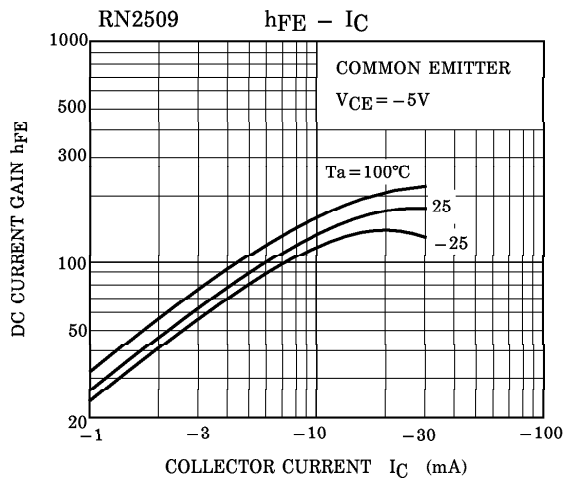
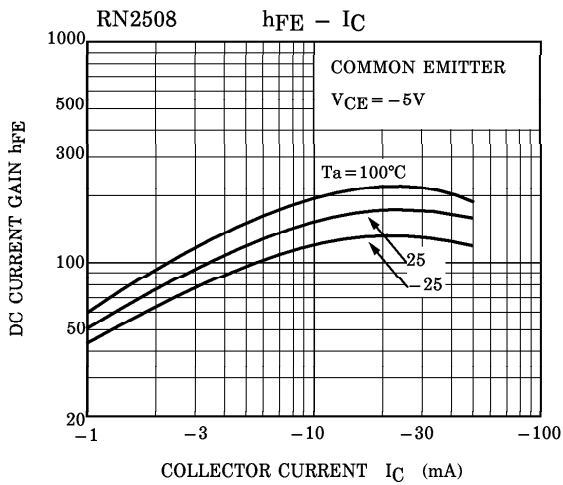
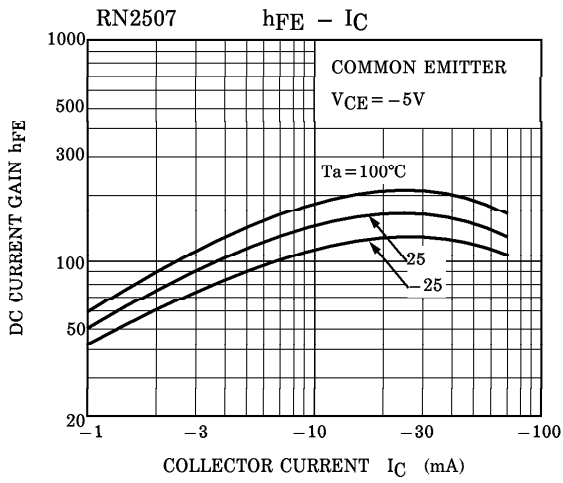
ELECTRICAL CHARACTERISTICS (Ta = 25°C) (Q1, Q2 COMMON)

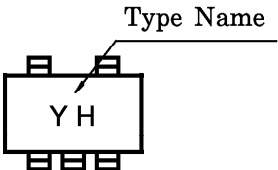
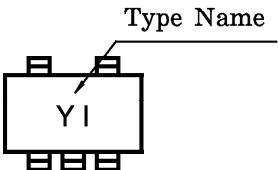
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	RN2507~2509	ICBO	V _{CB} = -50V, I _E = 0	—	—	-100	nA
		ICEO	V _{CE} = -50V, I _B = 0	—	—	-500	nA
Emitter Cut-off Current	RN2507	IEBO	V _{EB} = -6V, I _C = 0	-0.081	—	-0.15	mA
	RN2508		V _{EB} = -7V, I _C = 0	-0.078	—	-0.145	
	RN2509		V _{EB} = -15V, I _C = 0	-0.167	—	-0.311	
DC Current Gain	RN2507	h _{FE}	V _{CE} = -5V, I _C = -10mA	80	—	—	
	RN2508			80	—	—	
	RN2509			70	—	—	
Collector-Emitter Saturation Voltage	RN2507~2509	V _{CE(sat)}	I _C = -5mA, I _B = -0.25mA	—	-0.1	-0.3	V
Input Voltage (ON)	RN2507	V _{I(ON)}	V _{CE} = -0.2V, I _C = -5mA	-0.7	—	-1.8	V
	RN2508			-1.0	—	-2.6	
	RN2509			-2.2	—	-5.8	
Input Voltage (OFF)	RN2507	V _{I(OFF)}	V _{CE} = -5V, I _C = -0.1mA	-0.5	—	-1.0	V
	RN2508			-0.6	—	-1.16	
	RN2509			-1.5	—	-2.6	
Transition Frequency	RN2507~2509	f _T	V _{CE} = -10V, I _C = -5mA	—	200	—	MHz
Collector Output Capacitance	RN2507~2509	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz	—	3	6	pF
Input Resistor	RN2507	R1		7	10	13	kΩ
	RN2508			15.4	22	28.6	
	RN2509			32.9	47	61.1	
Resistor Ratio	RN2507	R1 / R2		0.191	0.213	0.232	
	RN2508			0.421	0.468	0.515	
	RN2509			1.92	2.14	2.35	

(Q1, Q2 COMMON)



(Q1, Q2 COMMON)



TYPE NAME	MARKING
RN2507	
RN2508	
RN2509	