

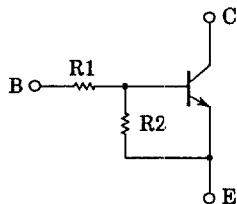
RN1507, 1508, 1509

(RN1507)

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

- 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 RN2507~2509

EQUIVALENT CIRCUIT AND BIAS RESISTOR VALUES



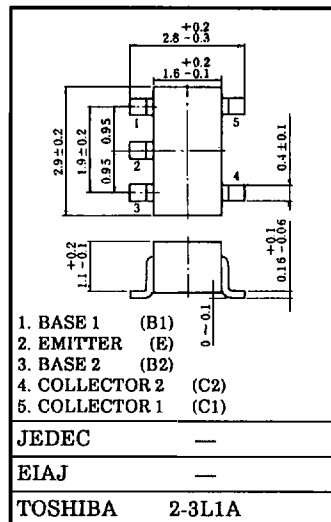
TYPE No.	R1 (kΩ)	R2 (kΩ)
RN1907	10	47
RN1908	22	47
RN1909	47	22

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	RN1507~1509	V _{CB0}	50	V
Collector-Emitter Voltage		V _{CE0}	50	V
Emitter-Base Voltage	RN1507	V _{EB0}	6	V
	RN1508		7	
	RN1509		15	
Collector Current	RN1507~1509	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

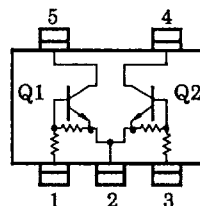
* : Total Rating

Unit in mm



Weight : 0.014g

EQUIVALENT CIRCUIT (TOP VIEW)



RN1507, 1508, 1509

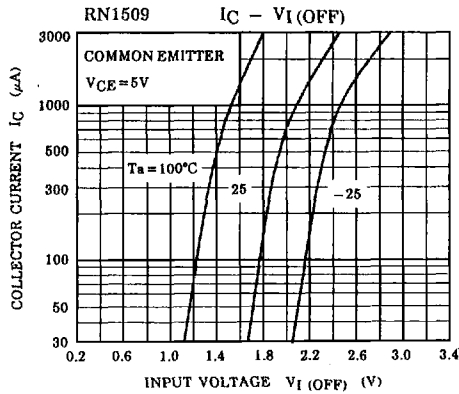
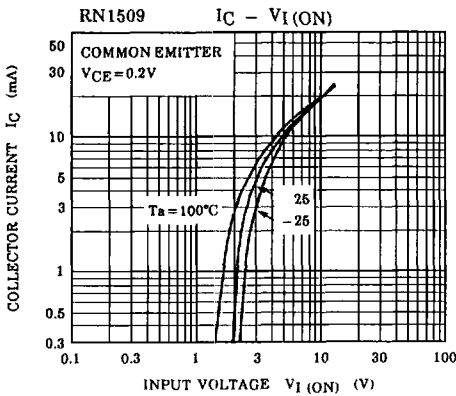
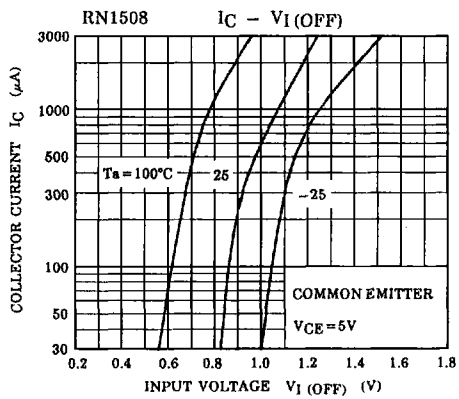
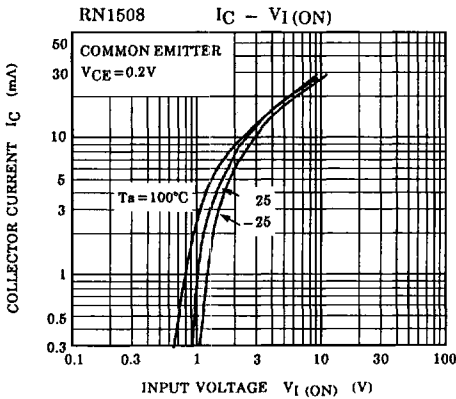
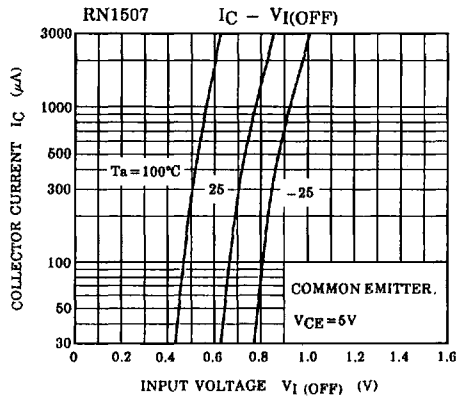
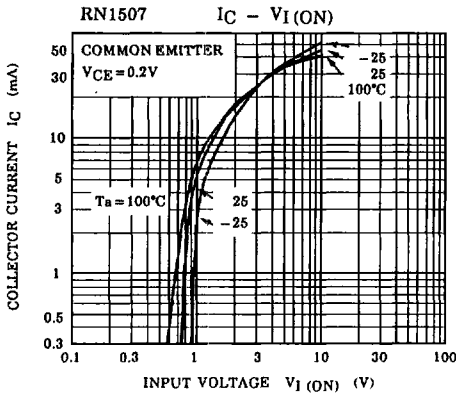
(RN1507)

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

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	RN1507~ 1509	ICBO	V _{CB} =50V, I _E =0	—	—	100	nA
		ICEO	V _{CE} =50V, I _B =0	—	—	500	nA
Emitter Cut-off Current	RN1507	IEBO	V _{EB} =6V, I _C =0	0.081	—	0.15	mA
	RN1508		V _{EB} =7V, I _C =0	0.078	—	0.145	
	RN1509		V _{EB} =15V, I _C =0	0.167	—	0.311	
DC Current Gain	RN1507	h _{FE}	V _{CE} =5V, I _C =10mA	80	—	—	
	RN1508			80	—	—	
	RN1509			70	—	—	
Collector-Emitter Saturation Voltage	RN1507~ 1509	V _{CE(sat)}	I _C =5mA I _B =0.25mA	—	0.1	0.3	V
Input Voltage (ON)	RN1507	V _{I(ON)}	V _{CE} =0.2V I _C =5mA	0.7	—	1.8	V
	RN1508			1.0	—	2.6	
	RN1509			2.2	—	5.8	
Input Voltage (OFF)	RN1507	V _{I(OFF)}	V _{CE} =5V I _C =0.1mA	0.5	—	1.0	V
	RN1508			0.6	—	1.16	
	RN1509			1.5	—	2.6	
Transition Frequency	RN1507~ 1509	f _T	V _{CE} =10V, I _C =5mA	—	250	—	MHz
Collector Output Capacitance	RN1507~ 1509	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz	—	3	6	pF
Input Resistor	RN1507	R1		7	10	13	kΩ
	RN1508			15.4	22	28.6	
	RN1509			32.9	47	61.1	
Resistor Ratio	RN1507	R1/R2		0.191	0.213	0.232	
	RN1508			0.421	0.468	0.515	
	RN1509			1.92	2.14	2.35	

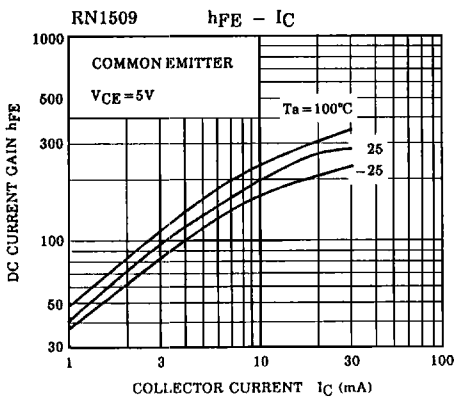
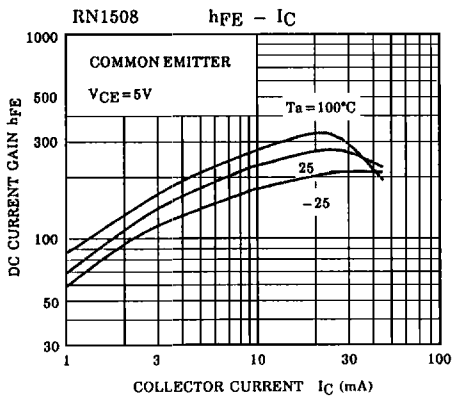
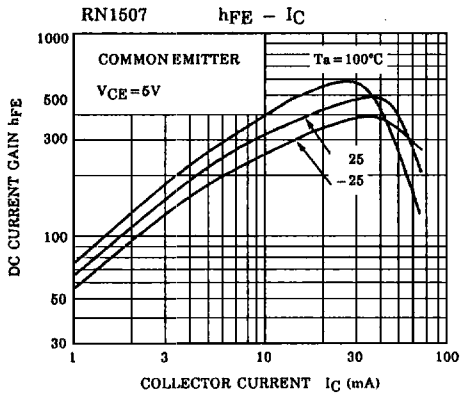
(RN1507)

(Q1, Q2 COMMON)

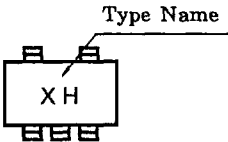
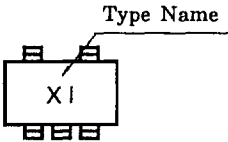
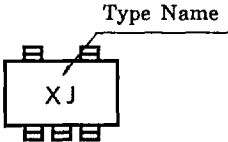


(RN1507)

(Q1, Q2 COMMON)



(RN1507)

TYPE NAME	MARKING
RN1507	 <p>The diagram shows a rectangular marking with the letters 'XH' inside. Above the rectangle are two small rectangular protrusions. A line points from the text 'Type Name' to the right-hand protrusion.</p>
RN1508	 <p>The diagram shows a rectangular marking with the letters 'XI' inside. Above the rectangle are two small rectangular protrusions. A line points from the text 'Type Name' to the right-hand protrusion.</p>
RN1509	 <p>The diagram shows a rectangular marking with the letters 'XJ' inside. Above the rectangle are two small rectangular protrusions. A line points from the text 'Type Name' to the right-hand protrusion.</p>