

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

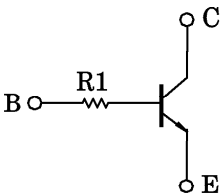
RN1510, RN1511

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 RN2510~RN2511

EQUIVALENT CIRCUIT



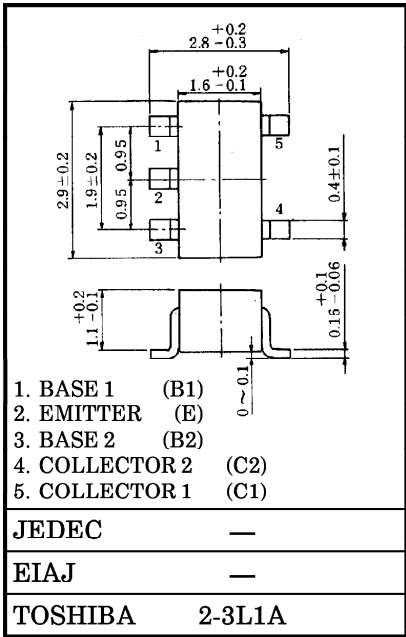
MAXIMUM RATINGS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
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

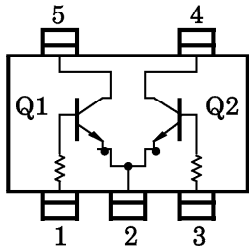
ELECTRICAL CHARACTERISTICS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=50V, I_E=0$	—	—	100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	—	—	100	nA
DC Current Gain	h_{FE}	$V_{CE}=5V, I_C=1mA$	120	—	700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5mA, I_B=0.25mA$	—	0.1	0.3	V
Transition Frequency	f_T	$V_{CE}=10V, I_C=5mA$	—	250	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0V, f=1MHz$	—	3	6	pF
Input Resistor	RN1510	R1	3.29	4.7	6.11	kΩ
	RN1511		7	10	13	



Weight : 0.014g

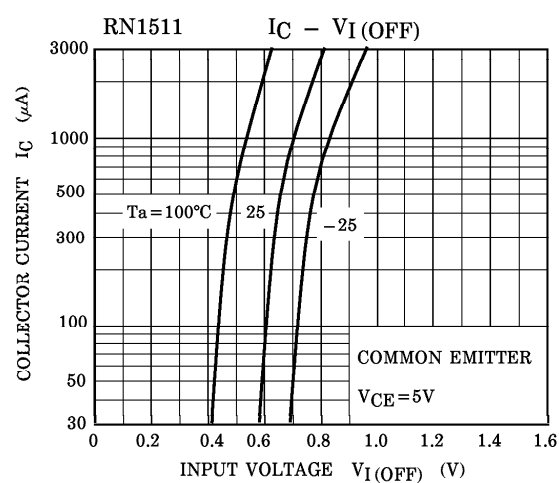
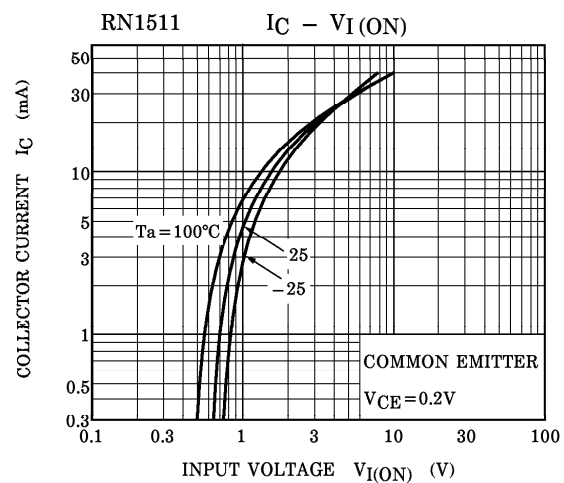
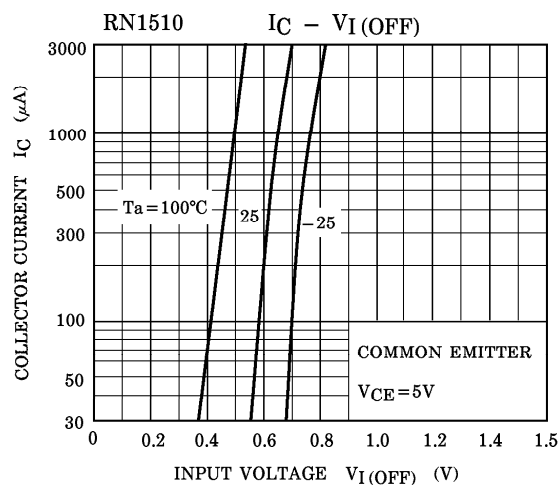
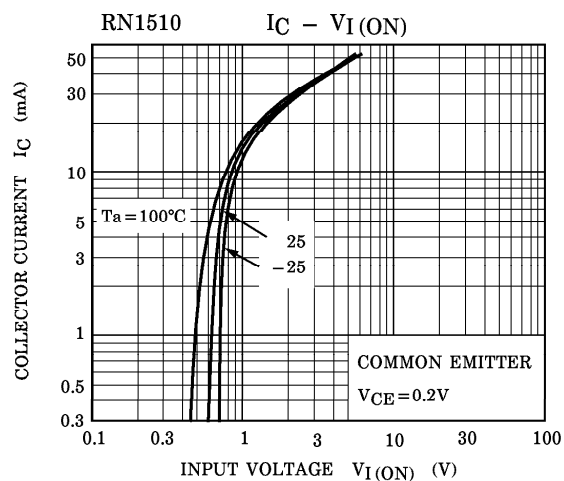
EQUIVALENT CIRCUIT (TOP VIEW)



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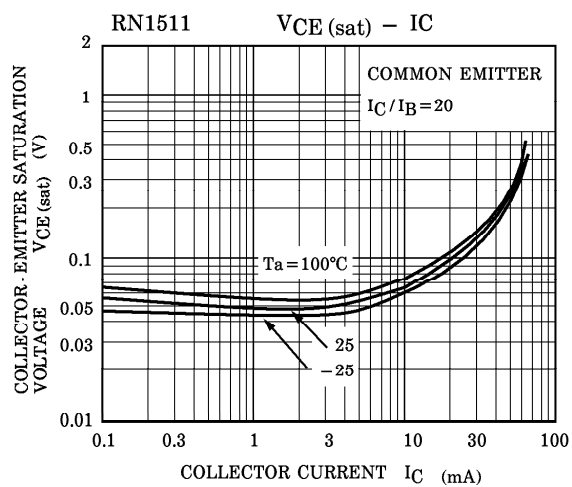
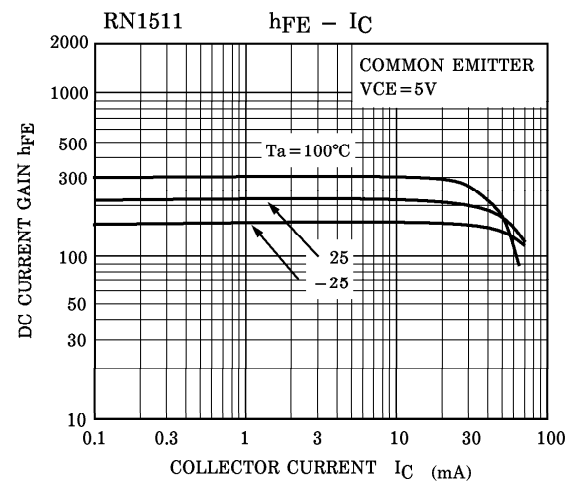
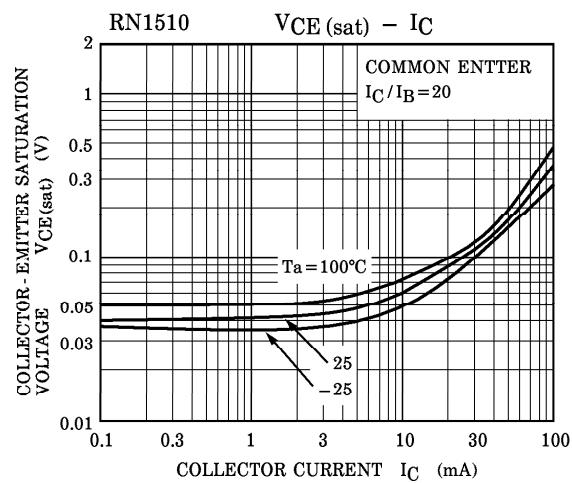
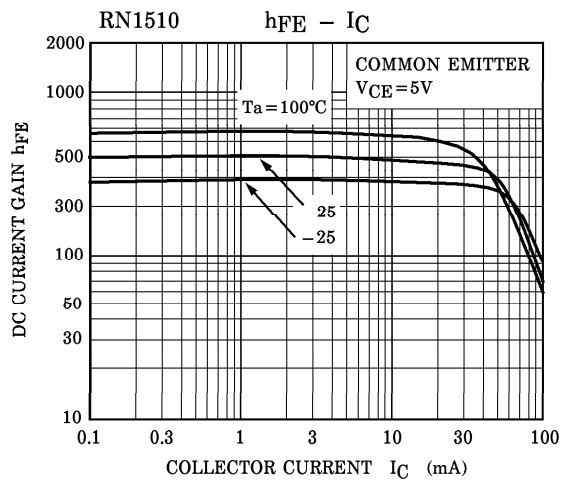
(Q1, Q2 COMMON)

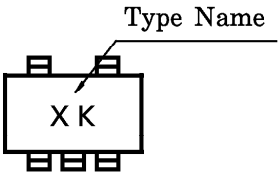
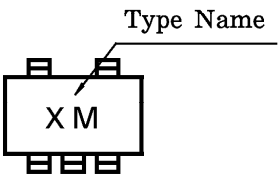


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(Q1, Q2 COMMON)



TYPE NAME	MARKING
RN1510	 The diagram shows a rectangular component with four pins: two on the top edge and two on the bottom edge. The text 'X K' is printed in the center. A leader line points from the text 'Type Name' to the 'K' in 'X K'.
RN1511	 The diagram shows a rectangular component with four pins: two on the top edge and two on the bottom edge. The text 'X M' is printed in the center. A leader line points from the text 'Type Name' to the 'M' in 'X M'.