

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

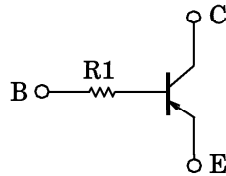
# RN2970, RN2971

Unit in mm

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

- Including Two Devices in US6 (Ultra Super Mini Type with 6 leads)
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- Complementary to RN1970~RN1971

EQUIVALENT CIRCUIT



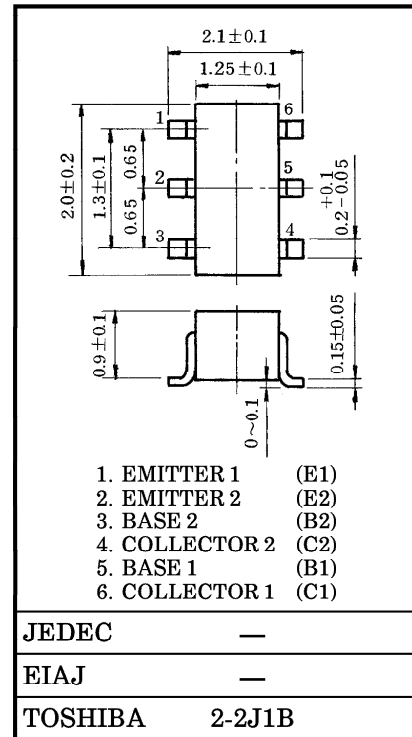
MAXIMUM RATINGS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CB0}$	-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	$P_C^*$	200	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55~150	°C

\* : Total Rating

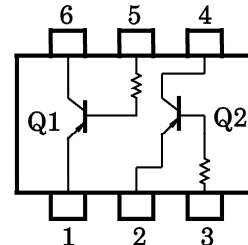
ELECTRICAL CHARACTERISTICS (Ta = 25°C) (Q1, Q2 COMMON)

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	—	400		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -5mA, I_B = -0.25mA$	—	-0.1	-0.3	V	
Transition Frequency	$f_T$	$V_{CE} = -10V, I_C = -5mA$	—	200	—	MHz	
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	3	6	pF	
Input Resistor	RN2970	R1	—	3.29	4.7	6.11	kΩ
	RN2971			7	10	13	



Weight : 6.8mg

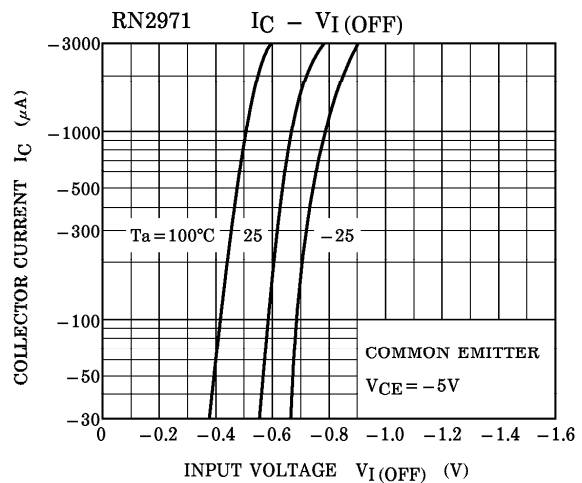
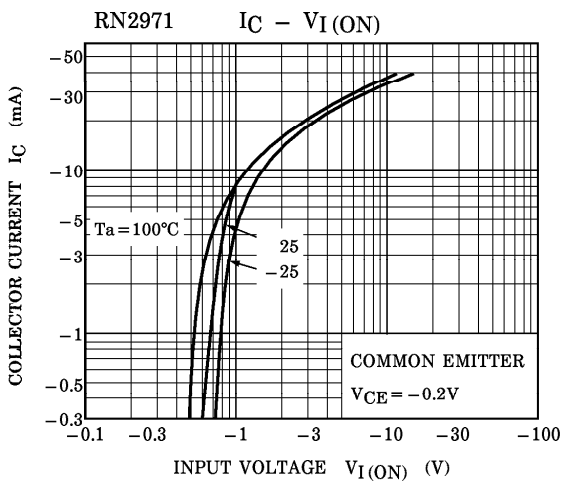
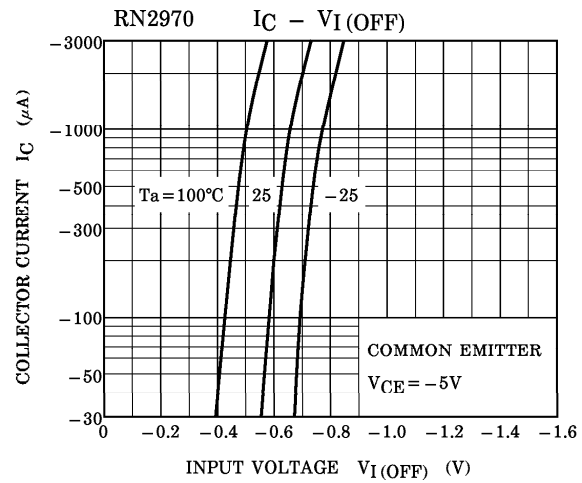
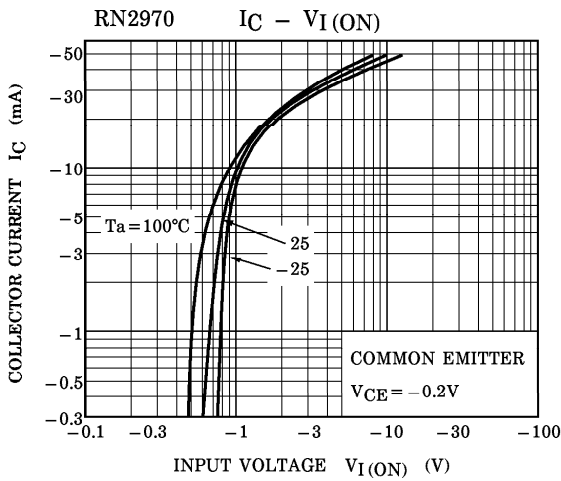
EQUIVALENT CIRCUIT (TOP VIEW)



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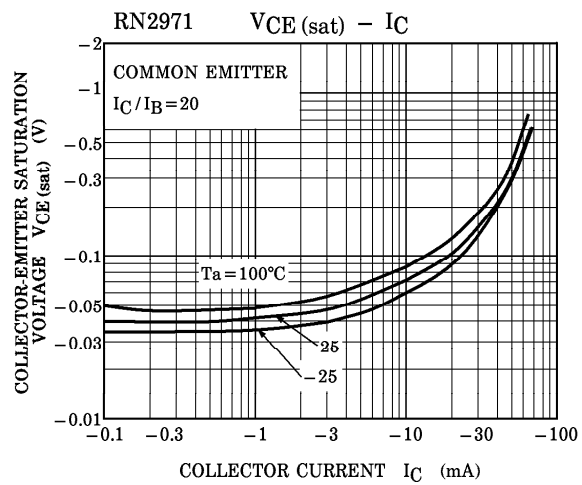
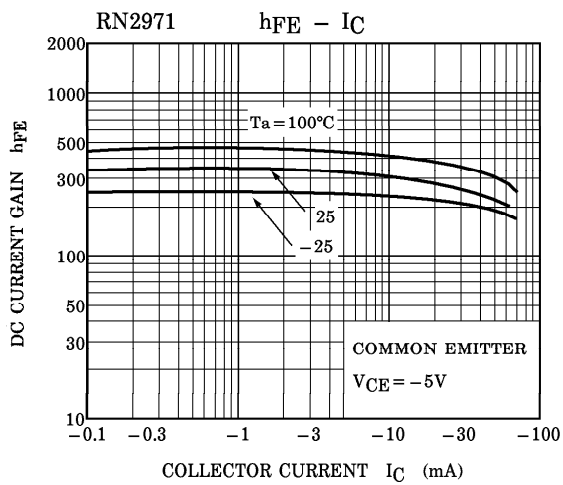
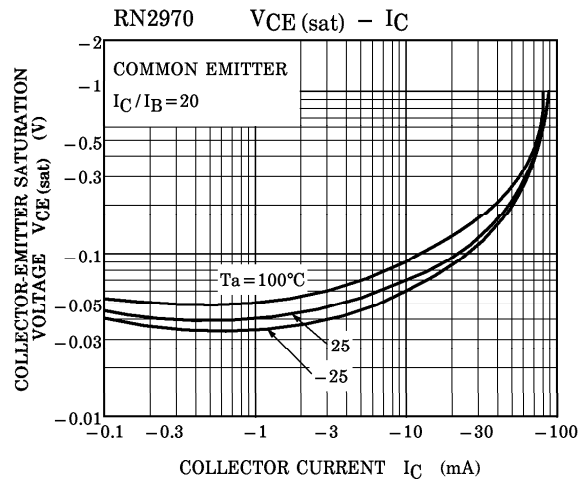
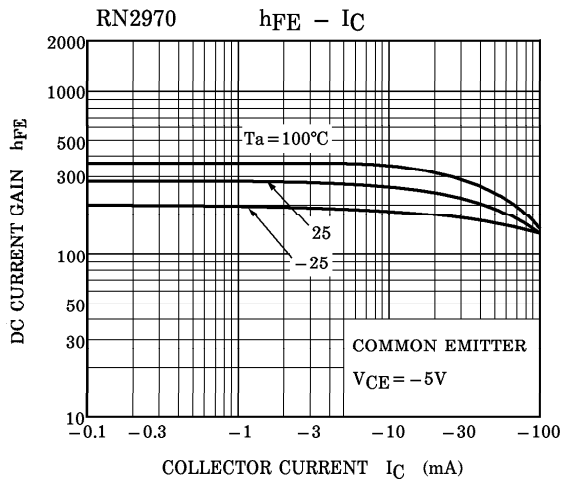
(Q1, Q2 COMMON)

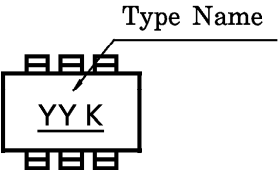
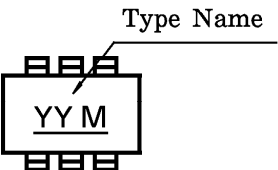


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(Q1, Q2, COMMON)



TYPE NAME	MARKING
RN2970	 A diagram of a rectangular component with four pins on each of the top and bottom edges. The marking 'YY K' is printed in the center. A line points from the text 'Type Name' to the 'Y' characters.
RN2971	 A diagram of a rectangular component with four pins on each of the top and bottom edges. The marking 'YY M' is printed in the center. A line points from the text 'Type Name' to the 'Y' characters.