

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

RN1970, RN1971

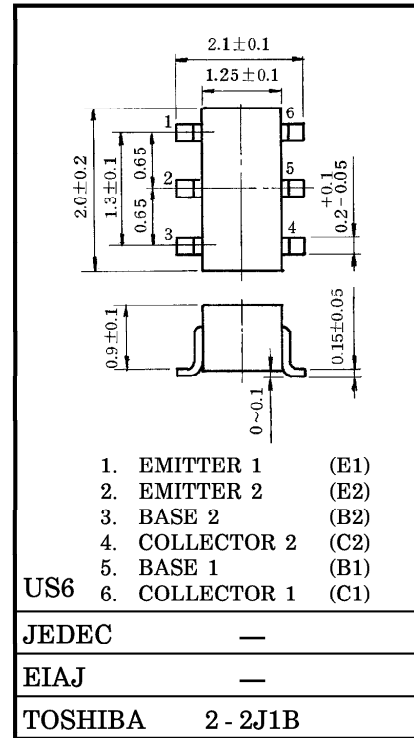
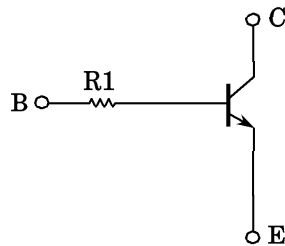
SWITCHING, INVERTER CIRCUIT, INTERFACE CIRCUIT

Unit in mm

AND DRIVER CIRCUIT APPLICATIONS.

- Including Two Devices in US6 (Ultra Super Mini Type 6 leads)
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- Complementary to RN2970~RN2971

EQUIVALENT CIRCUIT



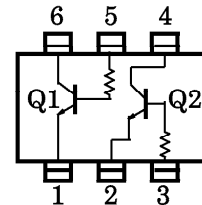
Weight : 6.8mg

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

EQUIVALENT CIRCUIT (TOP VIEW)



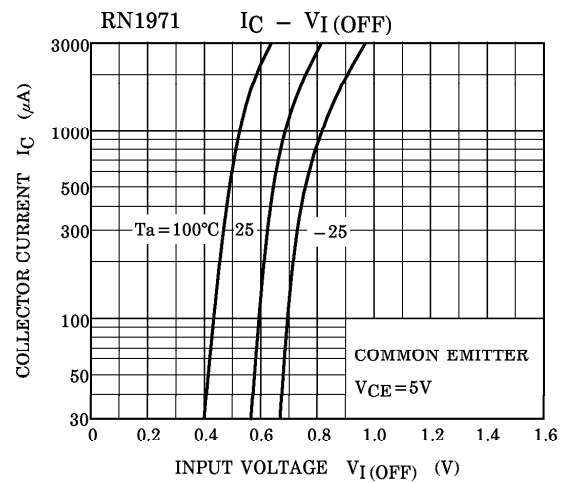
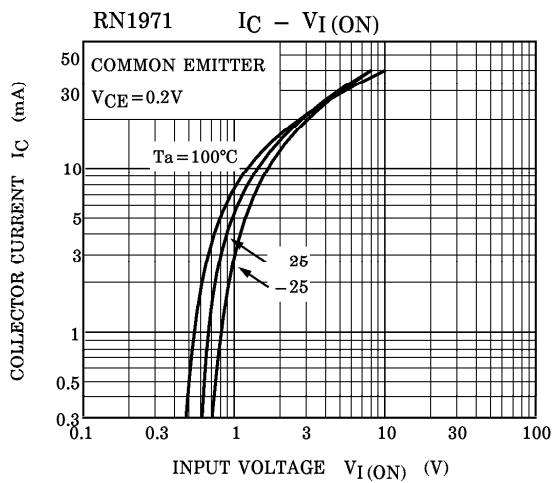
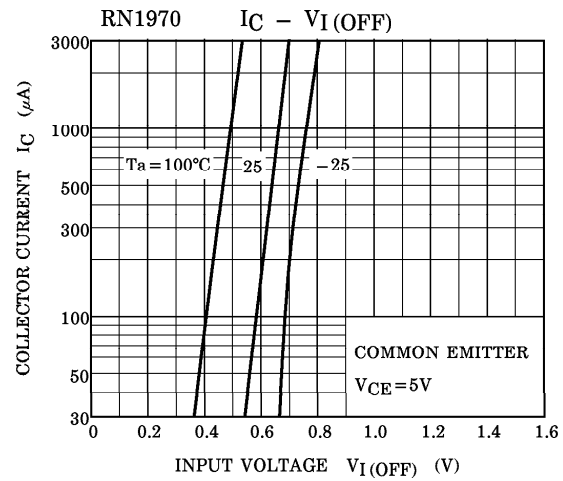
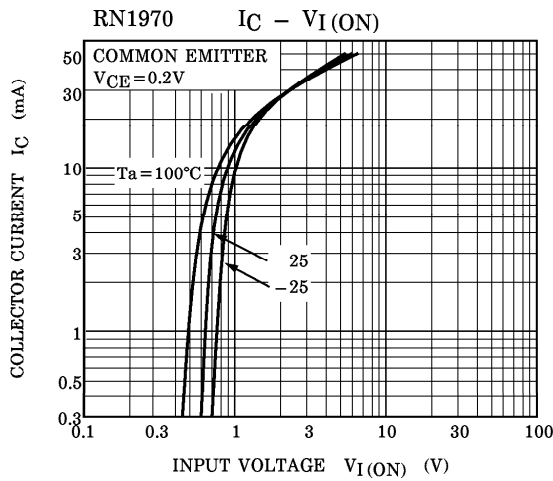
ELECTRICAL CHARACTERISTICS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX	UNIT	
Collector Cut-off Current	I _{CB0}	V _{CB} =5V, 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 =0, f=1MHz	—	3	6	pF	
Input Resistor	RN1970	R1	—	3.29	4.7	6.11	kΩ
	RN1971			7	10	13	

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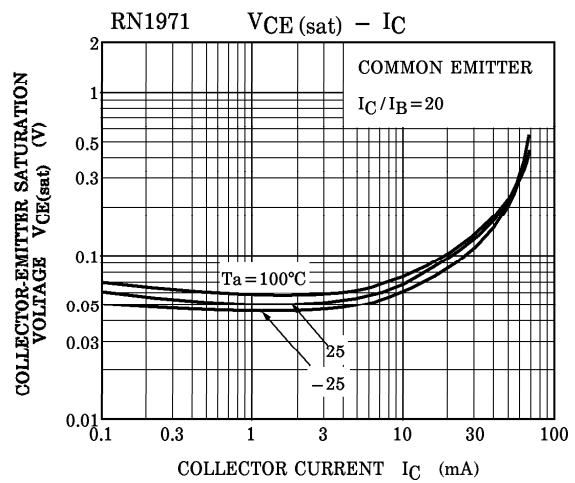
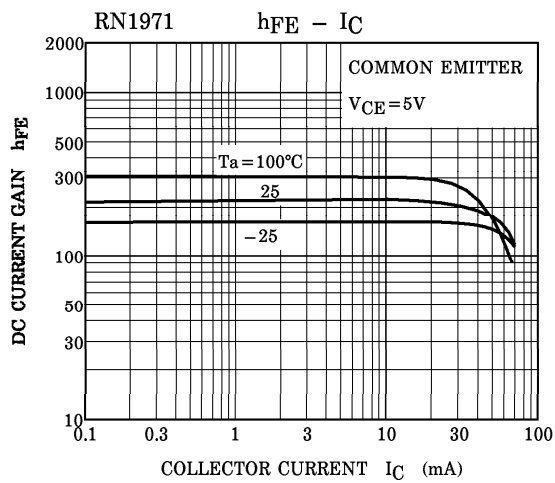
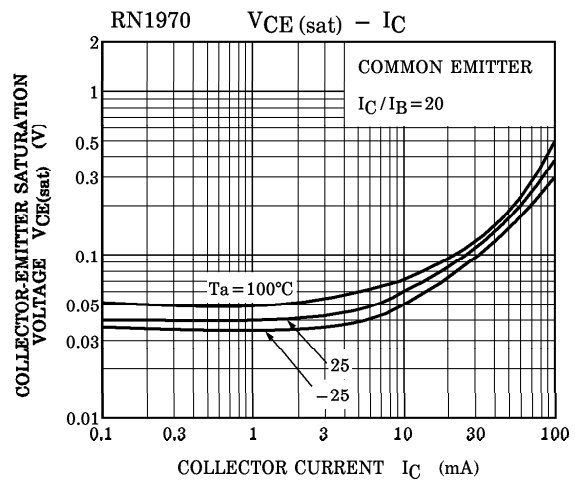
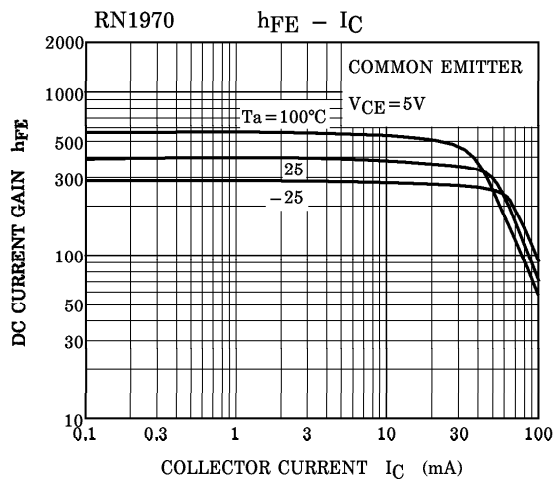
(Q1, Q2 COMMON)

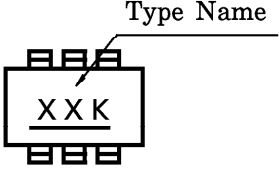


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(Q1, Q2 COMMON)



TYPE NAME	MARKING
RN1970	
RN1971	