

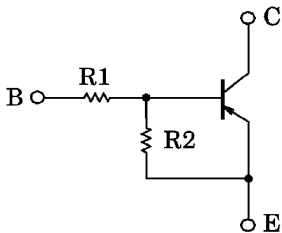
TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

RN2967, RN2968, RN2969

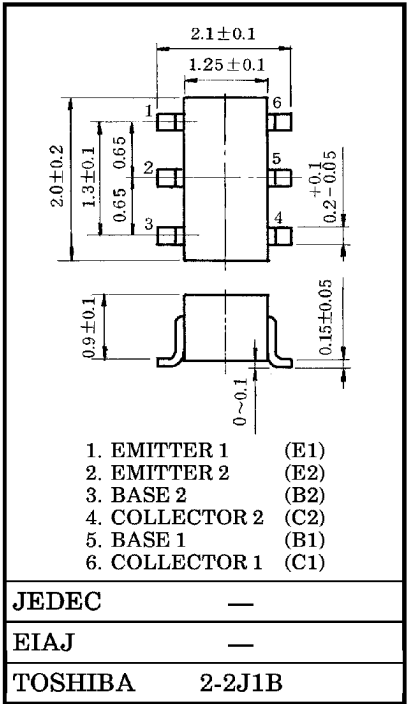
SWITCHING, INVERTER CIRCUIT, INTERFACE CIRCUIT
AND DRIVER CIRCUIT APPLICATIONS.

- 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 RN1967~RN1969

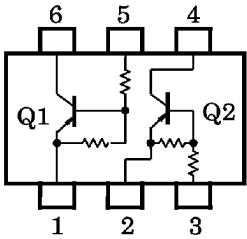
EQUIVALENT CIRCUIT AND BIAS RESISTOR VALUES



TYPE NO.	R1 (kΩ)	R2 (kΩ)
RN2967	10	47
RN2968	22	47
RN2969	47	22



EQUIVALENT CIRCUIT
(TOP VIEW)



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	RN2967	V _{EBO}	−6	V
	RN2968		−7	
	RN2969		−15	
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

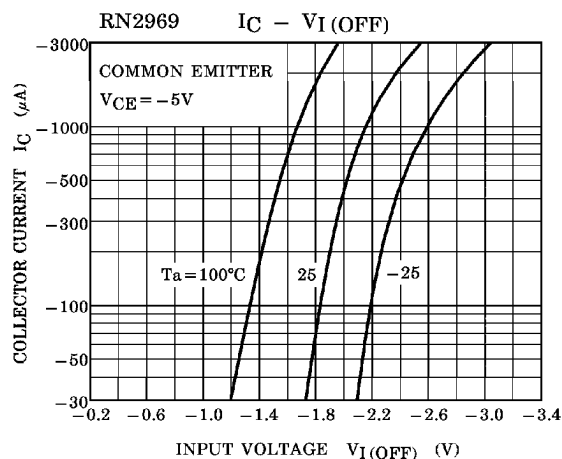
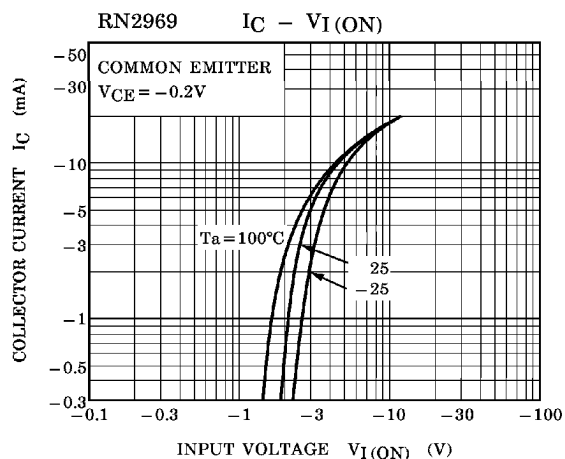
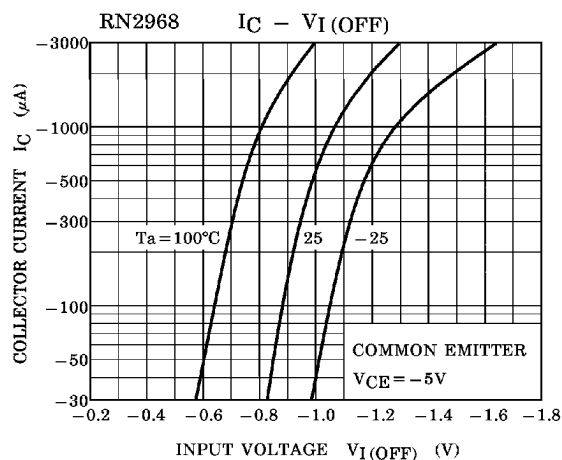
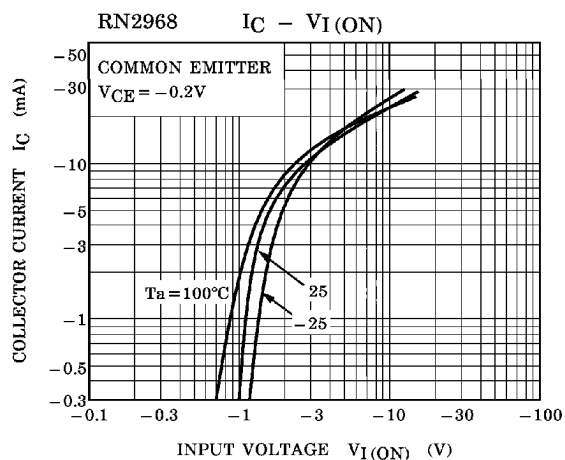
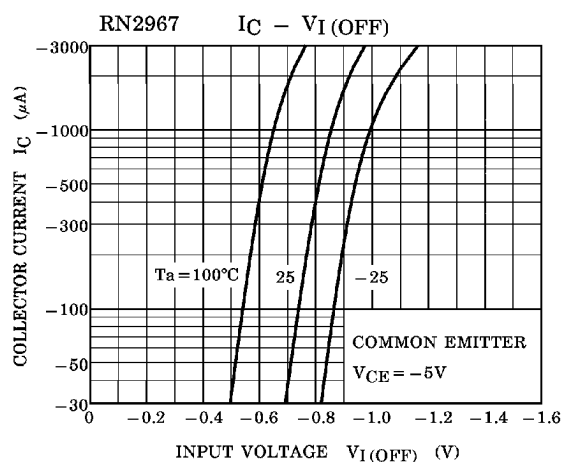
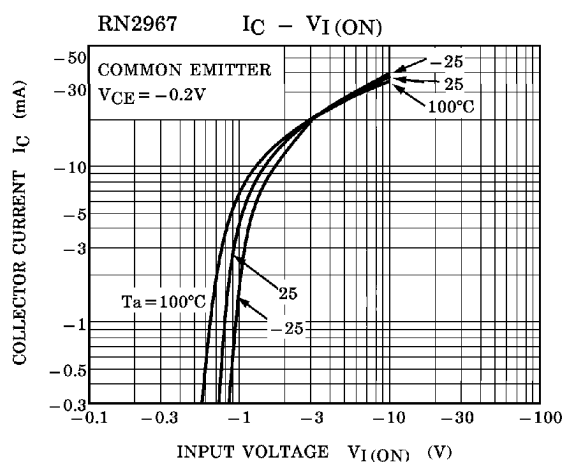
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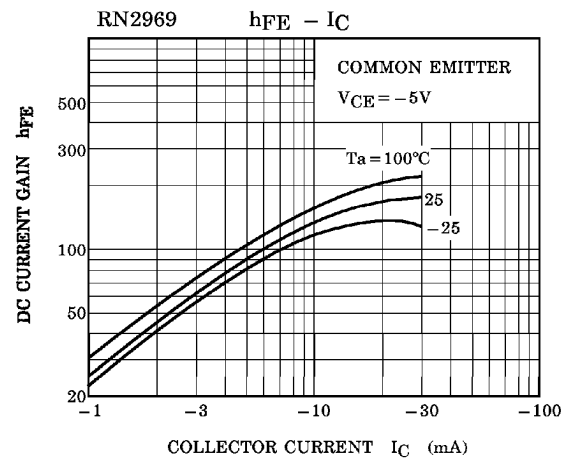
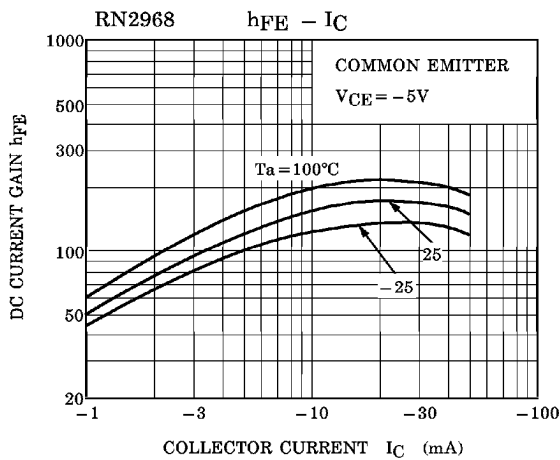
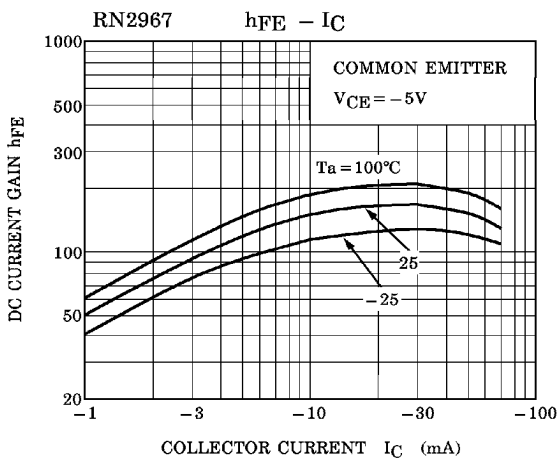
ELECTRICAL CHARACTERISTICS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	RN2967~2969	ICBO	V _{CB} = -50V, I _E = 0	—	—	-100	nA
		ICEO	V _{CE} = -50V, I _B = 0	—	—	-500	
Emitter Cut-off Current	RN2967	IEBO	V _{EB} = -6V, I _C = 0	-0.081	—	-0.15	mA
	RN2968		V _{EB} = -7V, I _C = 0	-0.078	—	-0.145	
	RN2969		V _{EB} = -15V, I _C = 0	-0.167	—	-0.311	
DC Current Gain	RN2967	h _{FE}	V _{CE} = -5V, I _C = -10mA	80	—	—	
	RN2968			80	—	—	
	RN2969			70	—	—	
Collector-Emitter Saturation Voltage	RN2967~2969	V _{CE} (sat)	I _C = -5mA I _B = -0.25mA	—	-0.1	-0.3	V
Input Voltage (ON)	RN2967	V _I (ON)	V _{CE} = -0.2V I _C = -5mA	-0.7	—	-1.8	V
	RN2968			-1.0	—	-2.6	
	RN2969			-2.2	—	-5.8	
Input Voltage (OFF)	RN2967	V _I (OFF)	V _{CE} = -5V I _C = -0.1mA	-0.5	—	-1.0	V
	RN2968			-0.6	—	-1.16	
	RN2969			-1.5	—	-2.6	
Transition Frequency	RN2967~2969	f _T	V _{CE} = -10V, I _C = -5mA	—	200	—	MHz
Collector Output Capacitance	RN2967~2969	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz	—	3	6	pF
Input Resistor	RN2967	R ₁		7	10	13	kΩ
	RN2968			15.4	22	28.6	
	RN2969			32.9	47	61.1	
Resistor Ratio	RN2967	R ₁ / R ₂		0.191	0.213	0.232	
	RN2968			0.421	0.468	0.515	
	RN2969			0.09	2.14	2.35	

(Q1, Q2 COMMON)



(Q1, Q2 COMMON)



TYPE NAME	MARKING
RN2967	Type Name YYY YYY H YYY
RN2968	Type Name YYY YYY I YYY
RN2969	Type Name YYY YYY J YYY