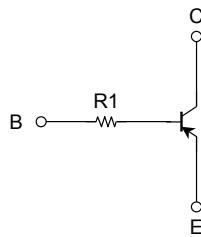


TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT process) (Bias Resistor Built-in Transistor)

**RN2910FS, RN2911FS**

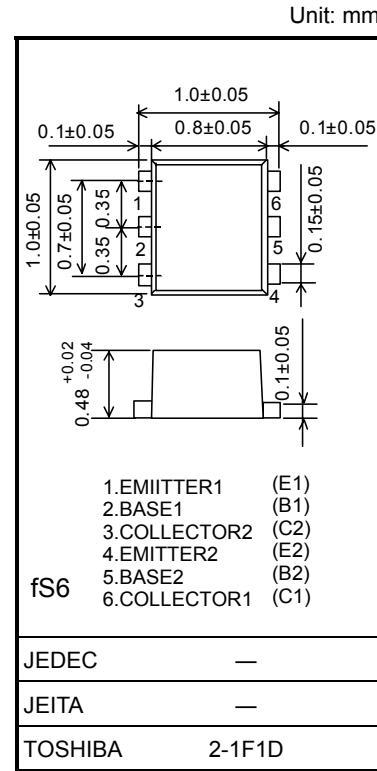
Switching, Inverter Circuit, Interface Circuit and  
Driver Circuit Applications

- Two devices are incorporated into a fine pitch small mold (6-pin) package.
- Incorporating a bias resistor into a transistor reduces parts count. Reducing the parts count enables the manufacture of ever more compact equipment and lowers assembly cost.
- Complementary to RN1910FS and RN1911FS

**Equivalent Circuit and Bias Resistor Values****Maximum Ratings (Ta = 25°C) (Q1, Q2 common)**

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V <sub>CBO</sub>	-20	V
Collector-emitter voltage	V <sub>CEO</sub>	-20	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current	I <sub>C</sub>	-50	mA
Collector power dissipation	P <sub>C</sub> (Note)	50	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55~150	°C

Note: Total rating

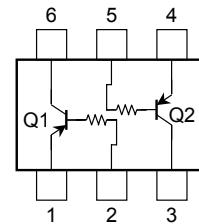


fS6 JEDEC —

JEITA —

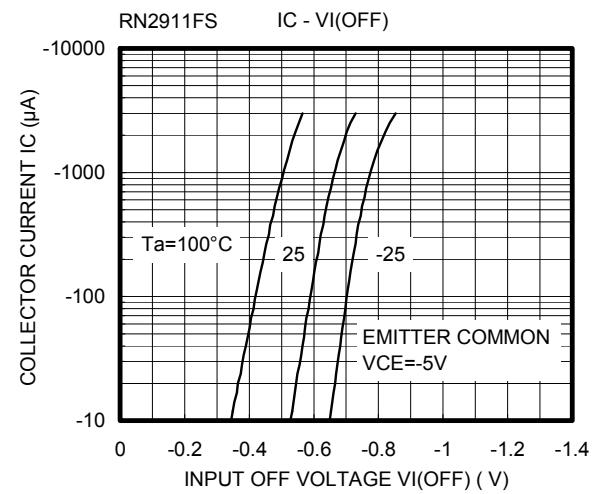
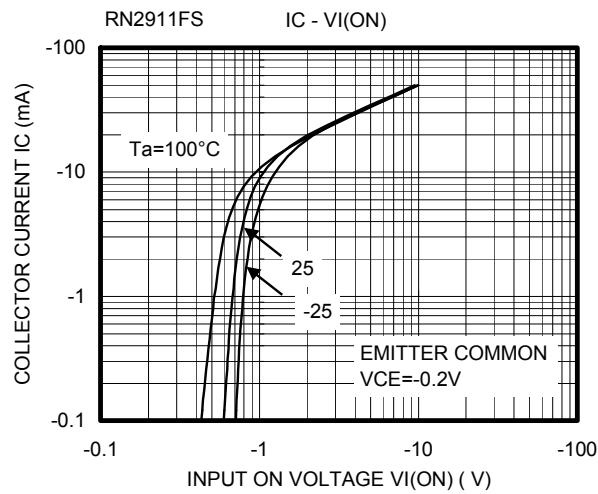
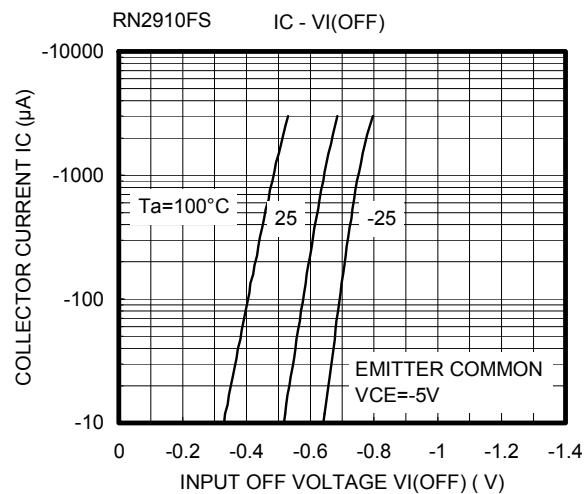
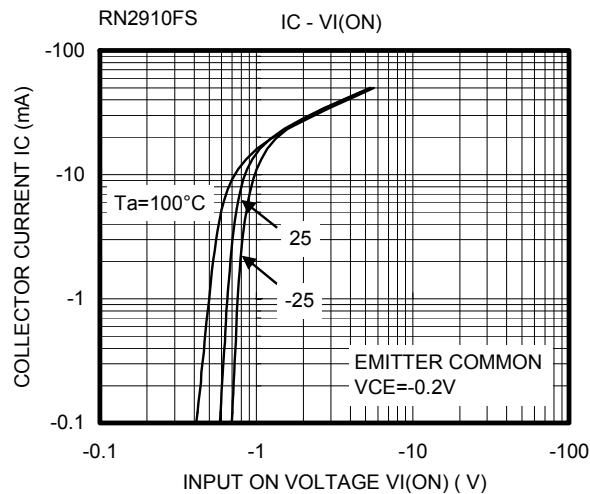
TOSHIBA 2-1F1D

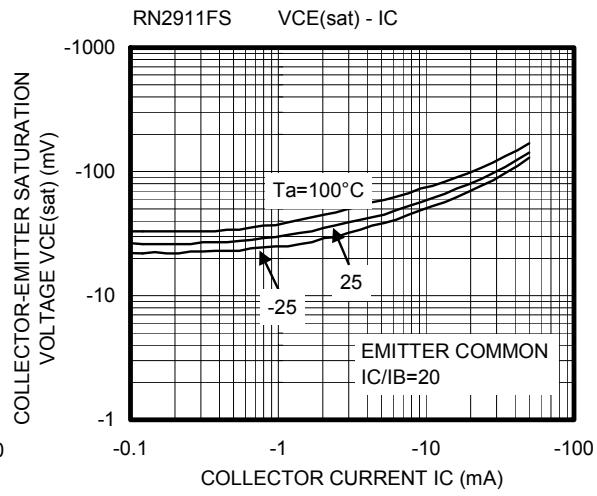
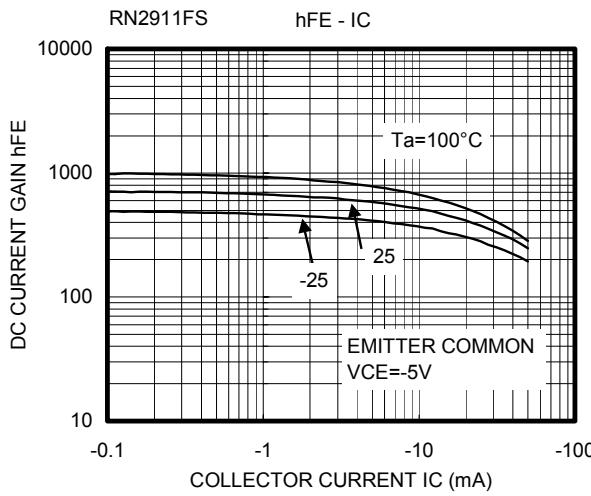
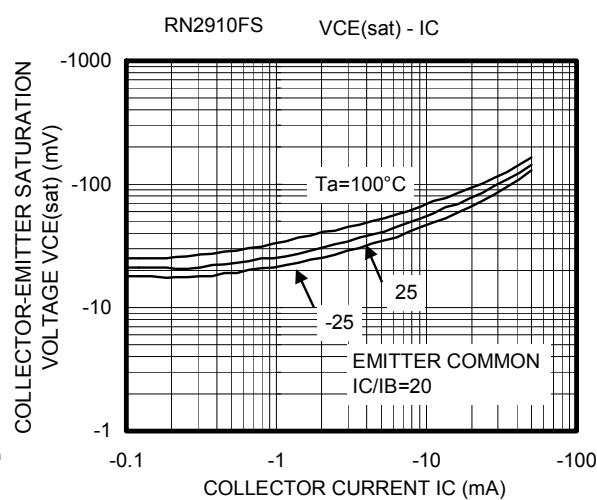
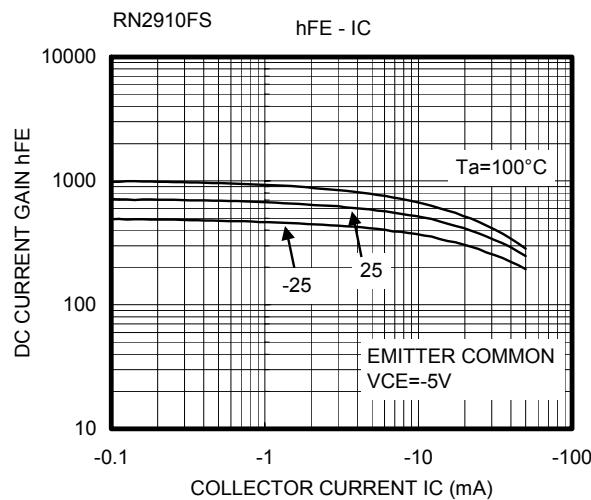
Weight: 0.001g (typ.)

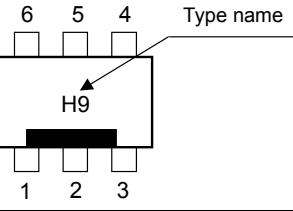
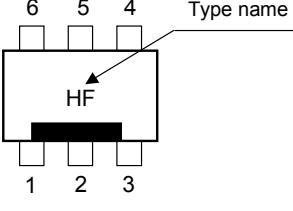
**Equivalent Circuit (top view)**

**Electrical Characteristics (Ta = 25°C) (Q1, Q2 common)**

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit	
Collector cut-off current	$I_{CBO}$	$V_{CB} = -20\text{ V}$ , $I_E = 0$	—	—	-100	nA	
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{ V}$ , $I_C = 0$	—	—	-100	nA	
DC current gain	$h_{FE}$	$V_{CE} = -5\text{ V}$ , $I_C = -1\text{ mA}$	300	—	—		
Collector-emitter saturation voltage	$V_{CE(\text{sat})}$	$I_C = -5\text{ mA}$ , $I_B = -0.25\text{ mA}$	—	—	-0.15	V	
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}$ , $I_E = 0$ , $f = 1\text{ MHz}$	—	1.2	—	pF	
Input resistor	RN2910FS	R1	—	3.76	4.7	5.64	kΩ
	RN2911FS			8	10	12	





Type Name	Marking
RN2910FS	 <p>Diagram showing the marking for RN2910FS. The chip is a 6-pin component. The top pins are labeled 6, 5, and 4. The bottom pins are labeled 1, 2, and 3. A thick black bar is positioned across the middle pins (2 and 3). An arrow points from the text 'Type name' to this black bar. The text 'H9' is printed below the chip.</p>
RN2911FS	 <p>Diagram showing the marking for RN2911FS. The chip is a 6-pin component. The top pins are labeled 6, 5, and 4. The bottom pins are labeled 1, 2, and 3. A thick black bar is positioned across the middle pins (2 and 3). An arrow points from the text 'Type name' to this black bar. The text 'HF' is printed below the chip.</p>

## HANDLING PRECAUTION

When handling individual devices (which are not yet mounted on a circuit board), be sure that the environment is protected against electrostatic discharge. Operators should wear anti-static clothing, and containers and other objects that come into direct contact with devices should be made of anti-static materials.

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030619EAA

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