

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

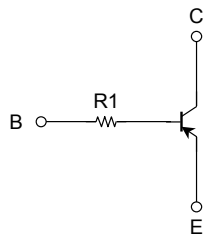
RN2910FS, RN2911FS

Switching, Inverter Circuit, Interface Circuit and
Driver Circuit Applications

Unit: mm

- 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

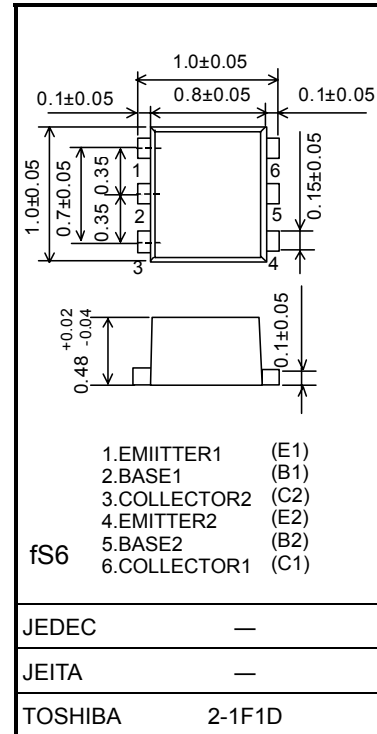
Equivalent Circuit and Bias Resistor Values



Maximum Ratings (Ta = 25°C) (Q1, Q2 common)

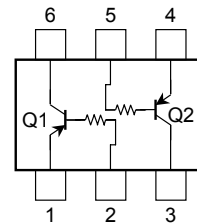
Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-20	V
Collector-emitter voltage	V_{CEO}	-20	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-50	mA
Collector power dissipation	P_C (Note)	50	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55~150	°C

Note: Total rating



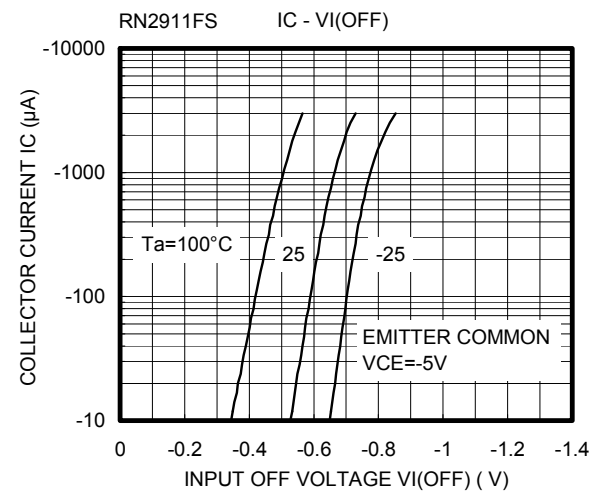
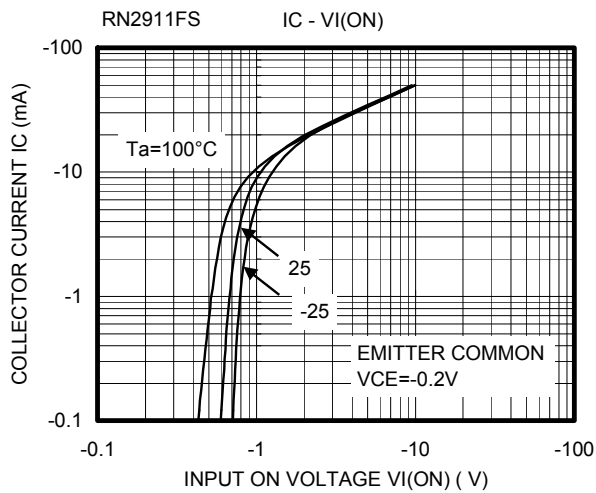
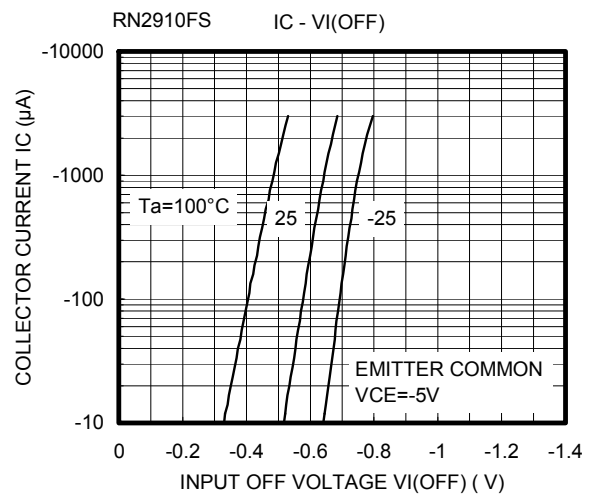
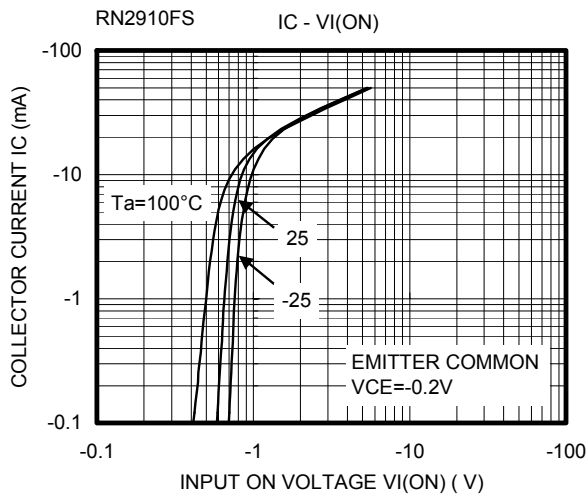
Weight: 0.001g (typ.)

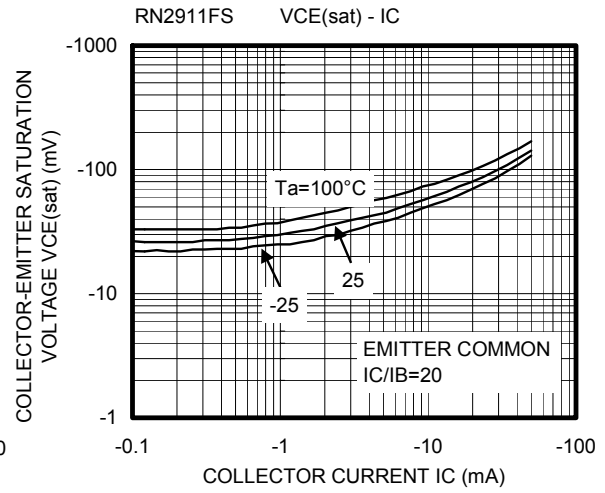
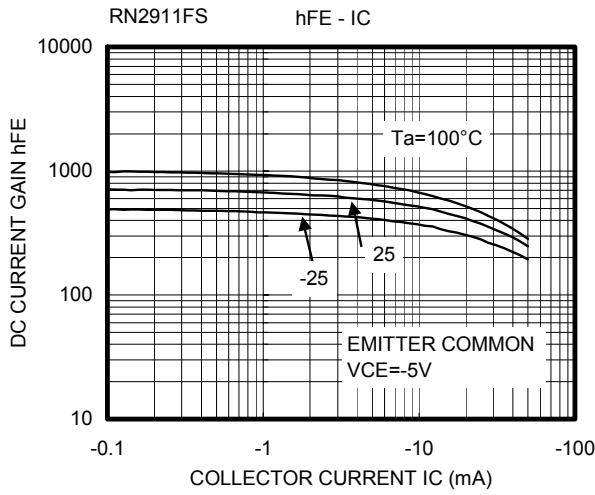
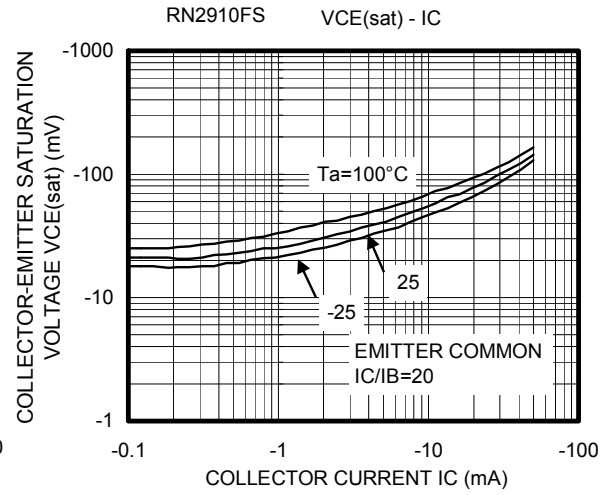
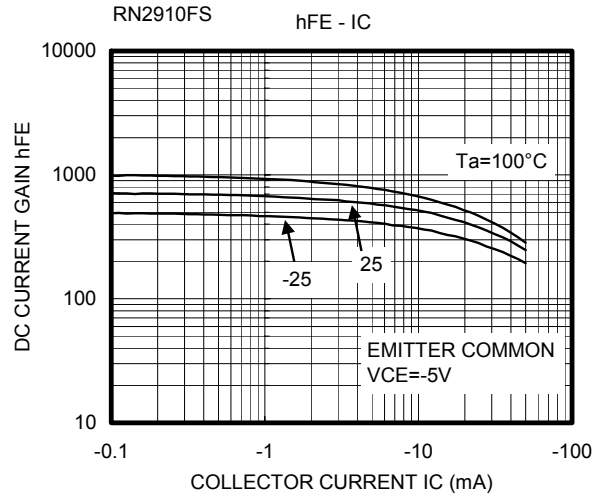
Equivalent Circuit (top view)

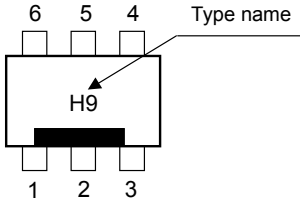
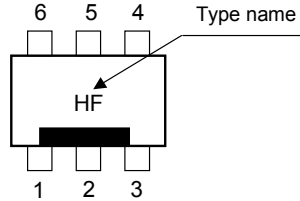


Electrical Characteristics (Ta = 25°C) (Q1, Q2 common)

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		$V_{CE(sat)}$	$I_C = -5\text{ mA}, I_B = -0.25\text{ mA}$	—		-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 on the RN2910FS device. The device is a rectangular component with six pins. Pins 1, 2, and 3 are at the bottom, and pins 4, 5, and 6 are at the top. The marking 'H9' is located in the center of the device. An arrow points from the text 'Type name' to the 'H9' marking.</p>
RN2911FS	 <p>Diagram showing the marking on the RN2911FS device. The device is a rectangular component with six pins. Pins 1, 2, and 3 are at the bottom, and pins 4, 5, and 6 are at the top. The marking 'HF' is located in the center of the device. An arrow points from the text 'Type name' to the 'HF' marking.</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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