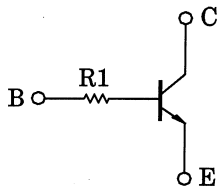


RN110FS, RN111FS

Switching, Inverter Circuit, Interface Circuit and Driver Circuit Applications

- 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 RN2110FS, RN2111FS

Equivalent Circuit and Bias Resistor Values



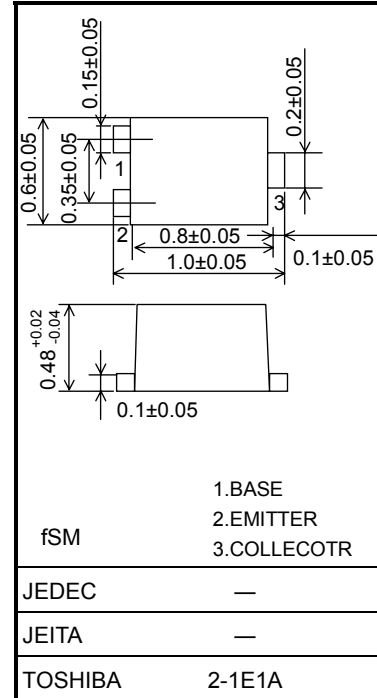
Maximum Ratings (Ta = 25°C)

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	50	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55~150	°C

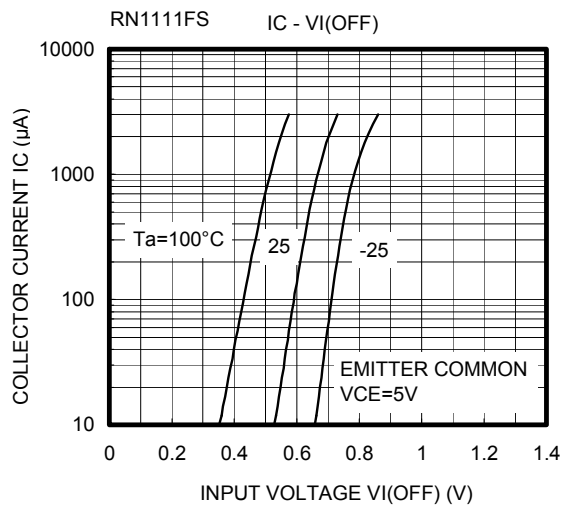
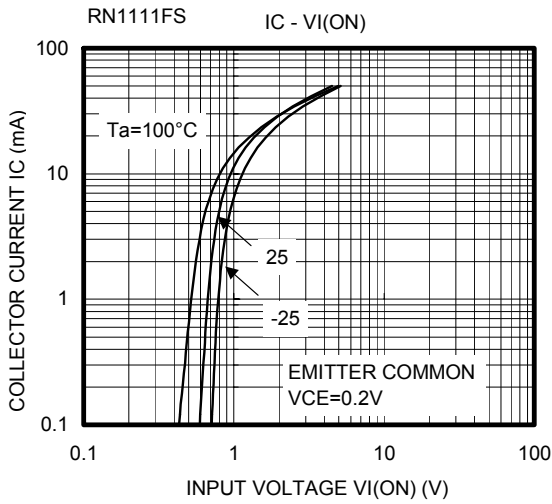
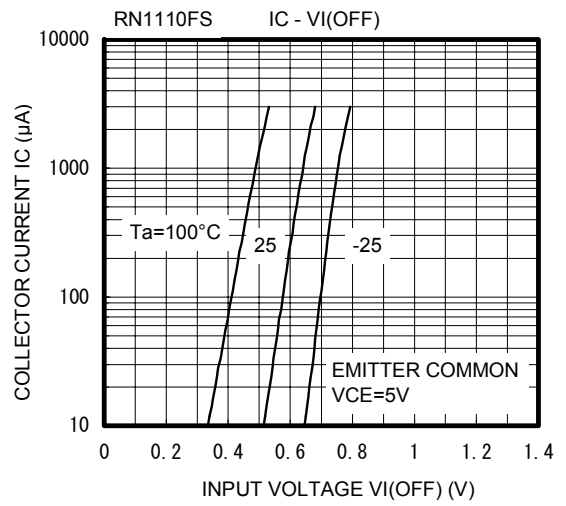
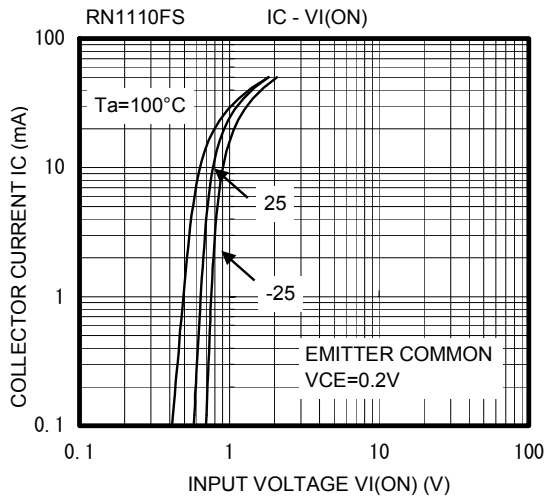
Electrical Characteristics (Ta = 25°C)

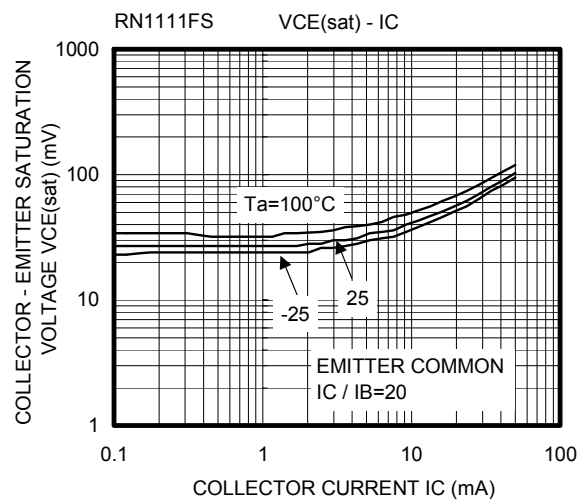
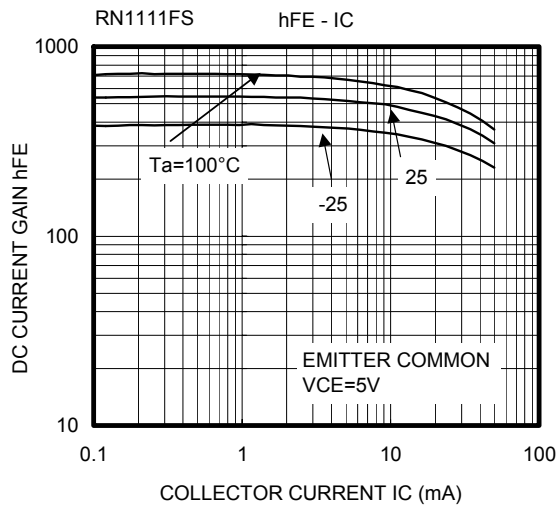
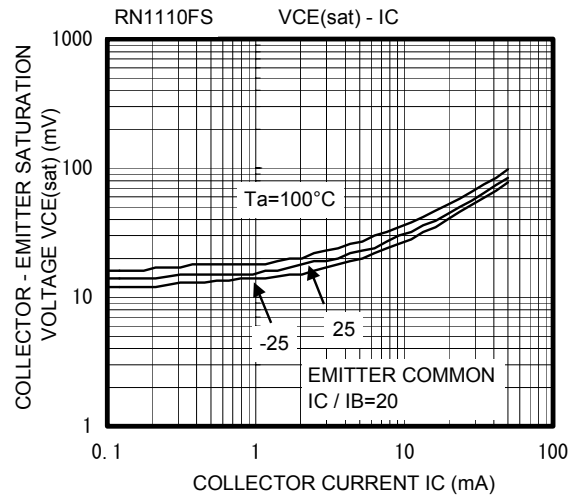
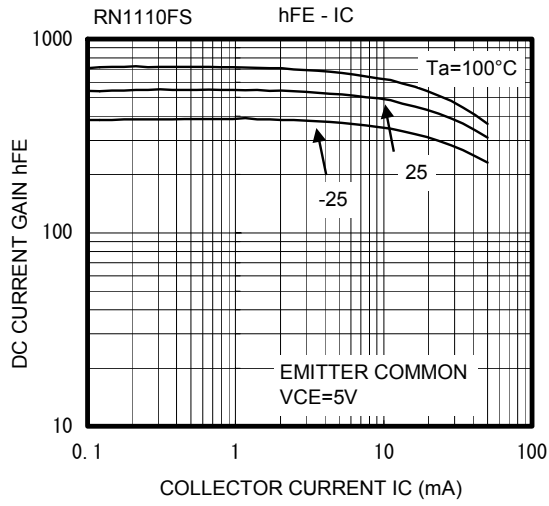
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit	
Collector cut-off current	I_{CBO}	$V_{CB} = 20\text{ V}, I_E = 0$	—	—	100	nA	
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$	—	—	100	nA	
DC current gain	h_{FE}	$V_{CE} = 5\text{ V}, I_C = 1\text{ mA}$	300	—	—		
Collector-emitter 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	RN110FS	R1	—	3.76	4.7	5.64	kΩ
	RN111FS			8	10	12	

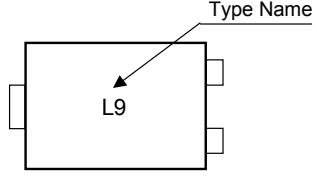
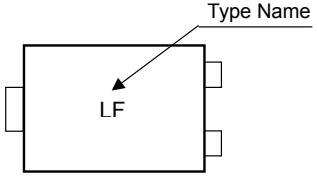
Unit: mm



Weight: 0.0006mg (typ.)





Type Name	Marking
RN1110FS	 A diagram of a rectangular component with a notch on the left side and two pins on the right side. An arrow points from the text 'Type Name' to the marking 'L9' inside the component.
RN1111FS	 A diagram of a rectangular component with a notch on the left side and two pins on the right side. An arrow points from the text 'Type Name' to the marking 'LF' inside the component.

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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