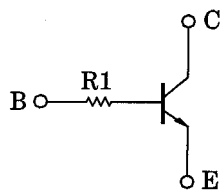


RN1112FS, RN1113FS

Switching, Inverter Circuit, Interface Circuit and
Driver Circuit Applications

- Incorporating a bias resistor into a transistor reduces parts count.
Reducing the parts count enable the manufacture of ever more compact equipment and save assembly cost.
- Complementary to RN2112FS, RN2113FS

Equivalent Circuit and Bias Resistor Values



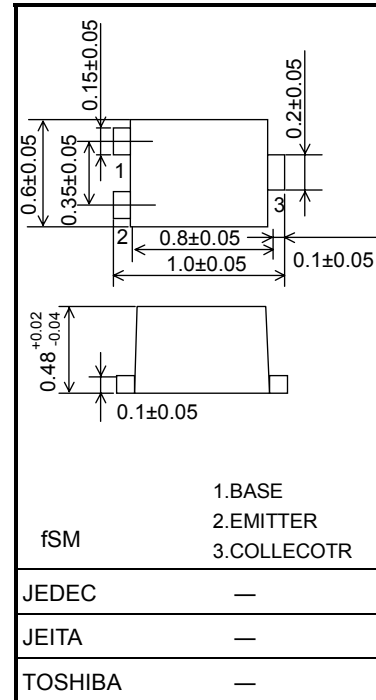
Maximum Ratings (Ta = 25°C)

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

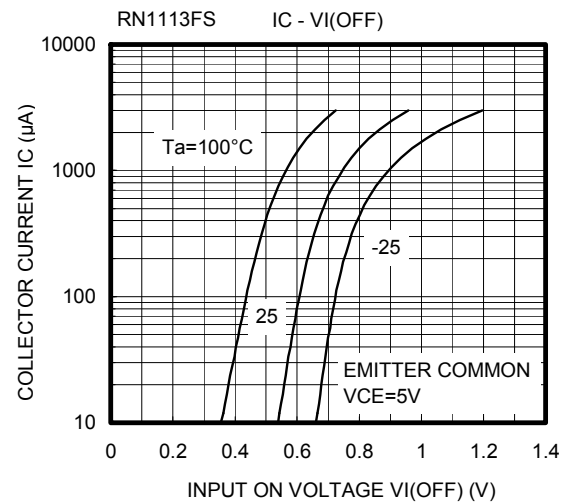
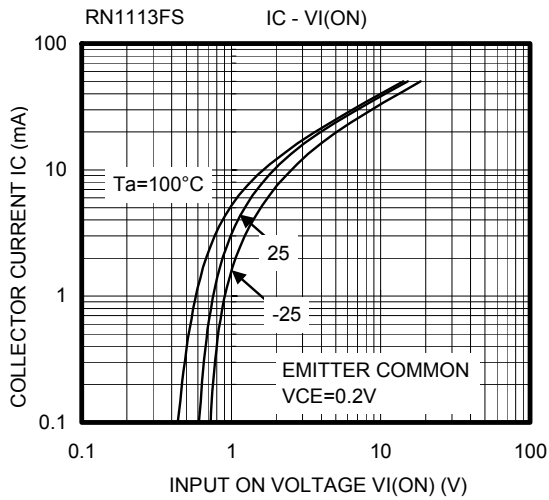
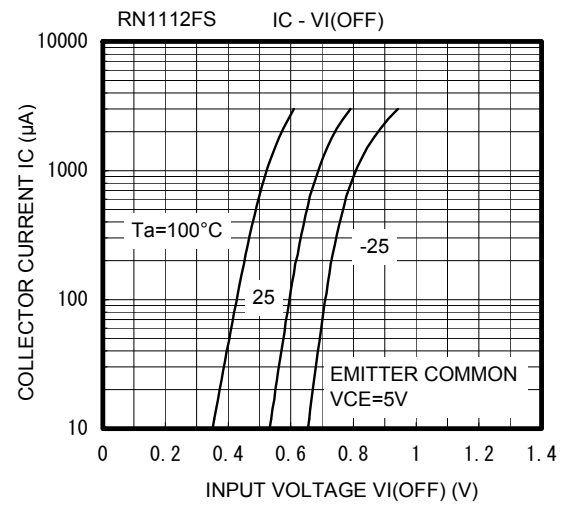
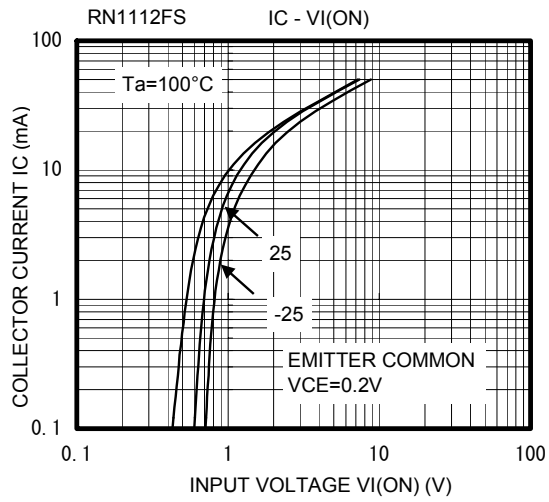
Electrical Characteristics (Ta = 25°C)

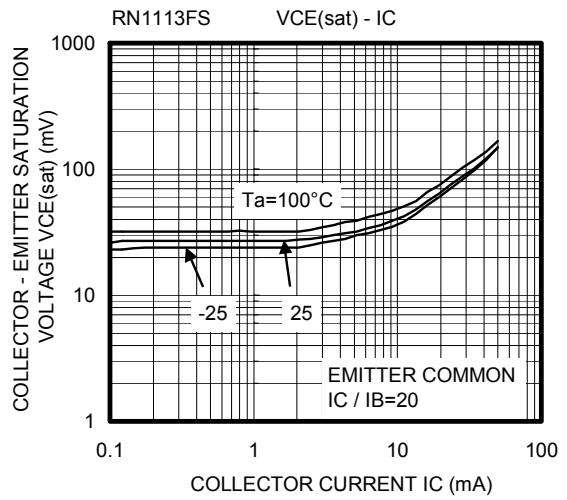
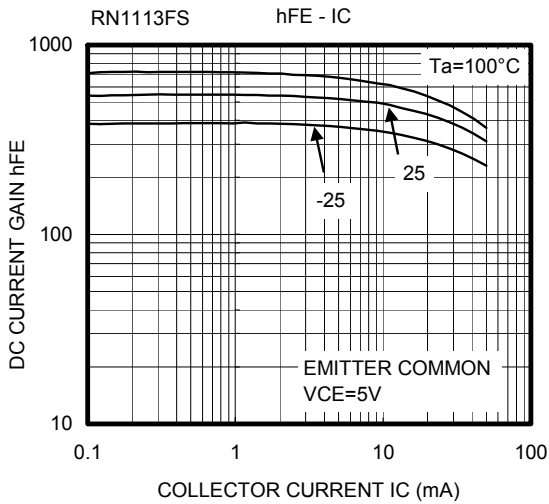
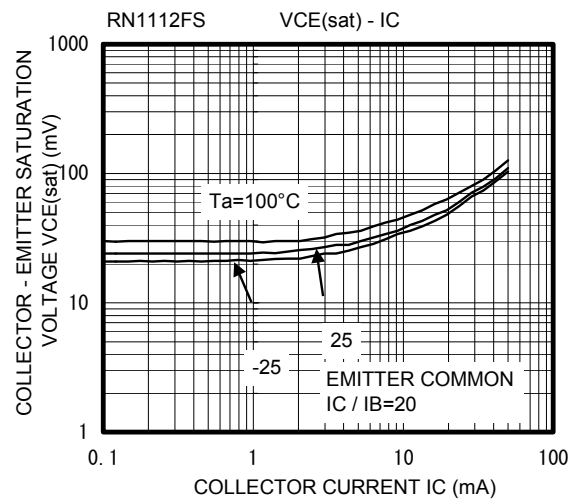
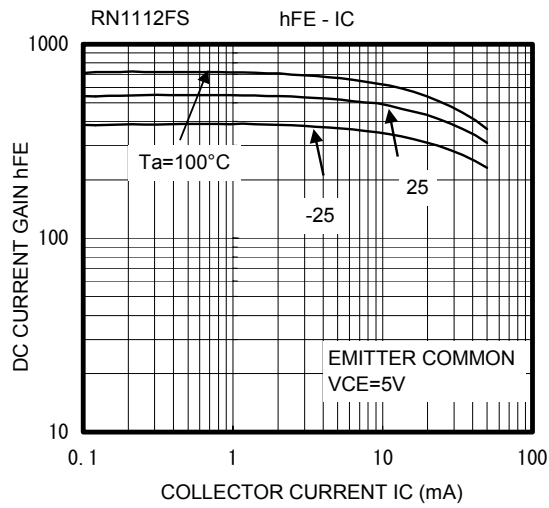
Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current		I_{CBO}	$V_{CB} = 20 \text{ V}, I_E = 0$	—	—	100	nA
Emitter cut-off current		I_{EBO}	$V_{EB} = 5 \text{ V}, I_C = 0$	—	—	100	nA
DC current gain		h_{FE}	$V_{CE} = 5 \text{ V}, I_C = 1 \text{ mA}$	300	—	—	
Collector-emitter 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	RN1112FS	R1	—	17.6	22	26.4	kΩ
	RN1113FS			37.6	47	56.4	

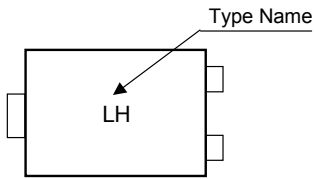
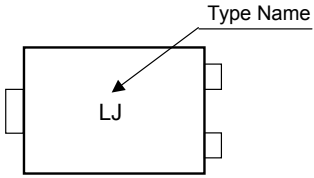
Unit: mm



Weight: 0.0006mg (typ.)





Type Name	Marking
RN1112FS	 <p>The diagram shows a rectangular component with four pins. The marking 'LH' is printed in the center. An arrow points from the text 'Type Name' to the 'LH' marking.</p>
RN1113FS	 <p>The diagram shows a rectangular component with four pins. The marking 'LJ' is printed in the center. An arrow points from the text 'Type Name' to the 'LJ' 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 electricity. 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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