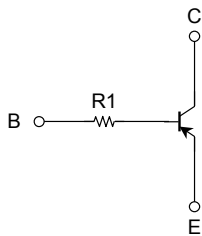


RN2112FS, RN2113FS

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 RN1112FS, RN1113FS

Equivalent Circuit and Bias Resistor Values



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

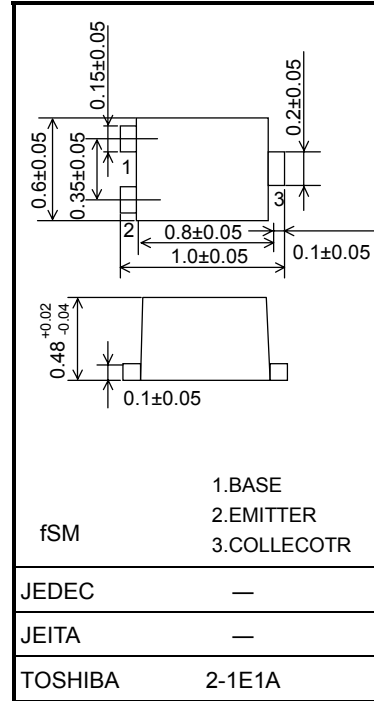
Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-20	V
Collector-emitter voltage	V_{CEO}	-20	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-50	mA
Collector power dissipation	P_C (Note)	50	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55~150	°C

Note: Total rating

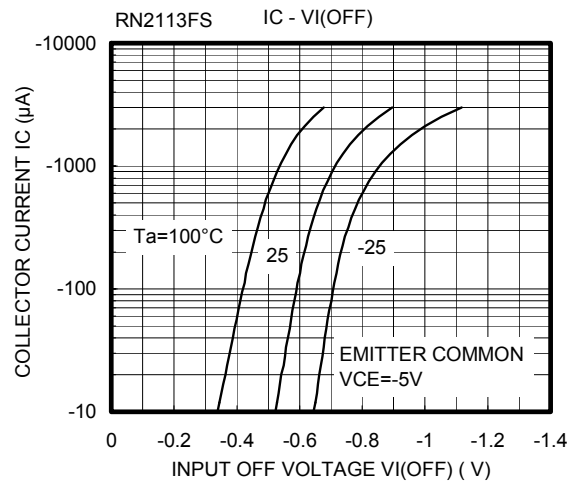
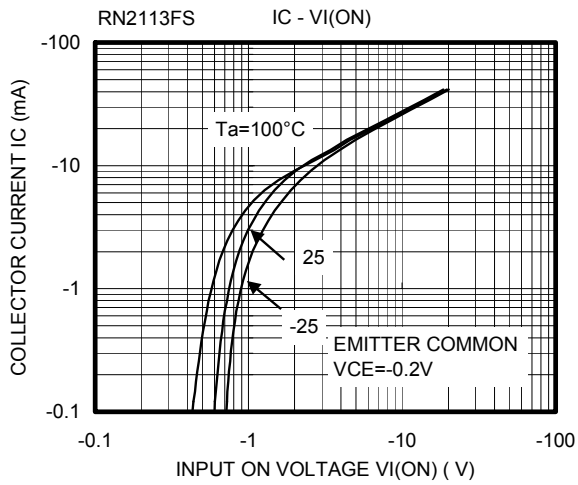
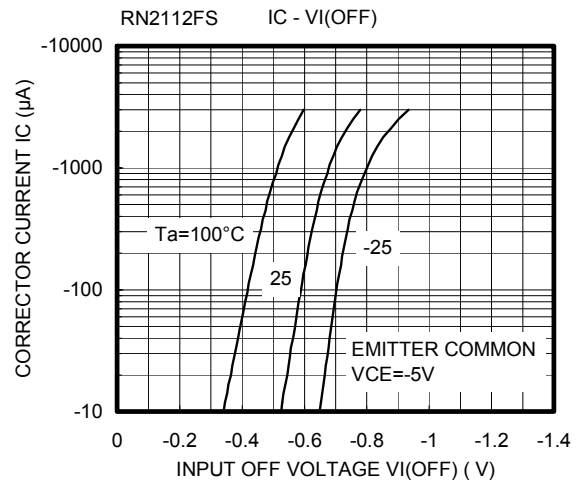
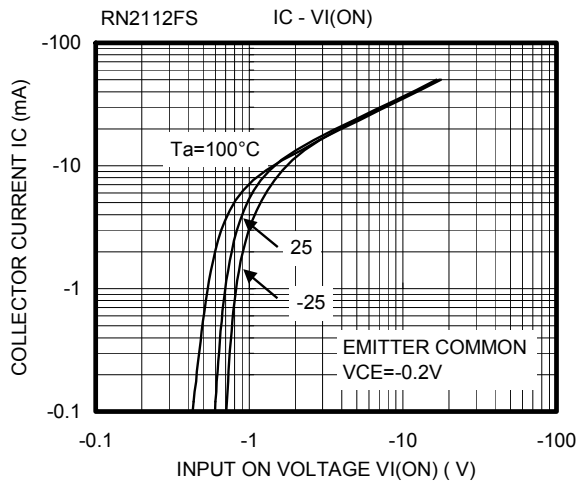
Electrical Characteristics (Ta = 25°C) (Q1, Q2 common)

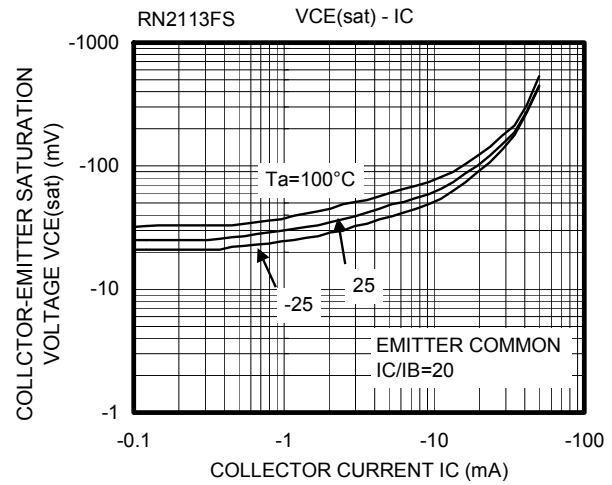
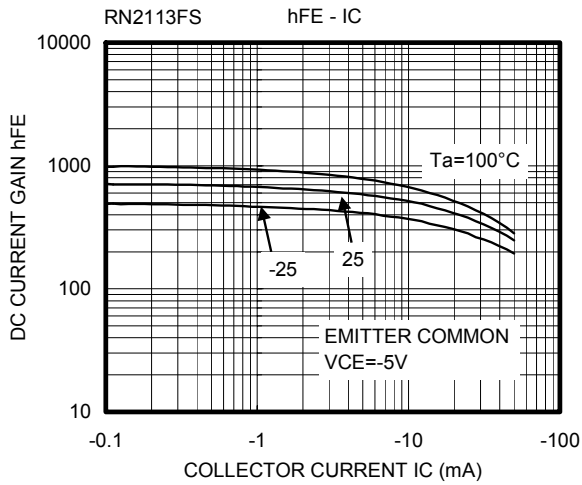
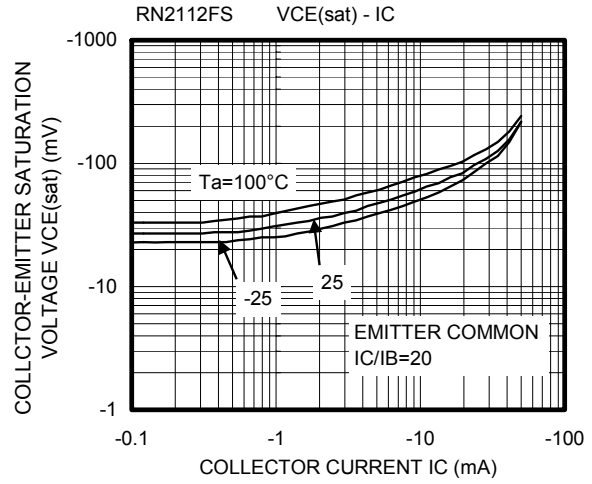
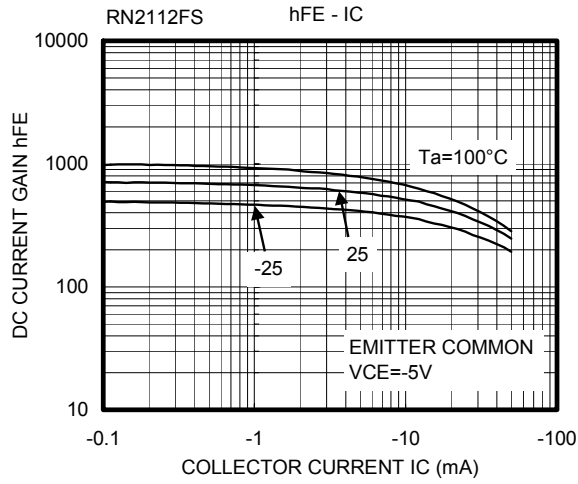
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = -20\text{ V}, I_E = 0$	—	—	-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{ V}, I_C = 0$	—	—	-100	nA
DC current gain	h_{FE}	$V_{CE} = -5\text{ V}, I_C = -1\text{ mA}$	300	—	—	
Collector-emitter 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	RN2112FS	R1	17.6	22	26.4	kΩ
	RN2113FS		37.6	47	56.4	

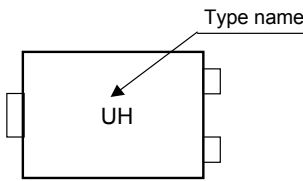
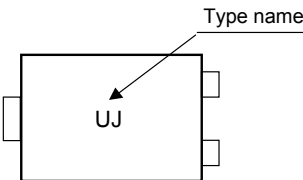
Unit: mm



Weight: 0.0006g (typ.)





Type Name	Marking
RN2112FS	
RN2113FS	

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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