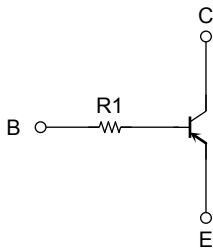


RN2110ACT, RN2111ACT

Switching Applications
 Inverter Circuit Applications
 Interface Circuit Applications
 Driver Circuit Applications

- Extra small package (CST3) is applicable for extra high density fabrication.
- 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 RN1110ACT, RN1111ACT

Equivalent Circuit



Absolute Maximum Ratings (Ta = 25°C)

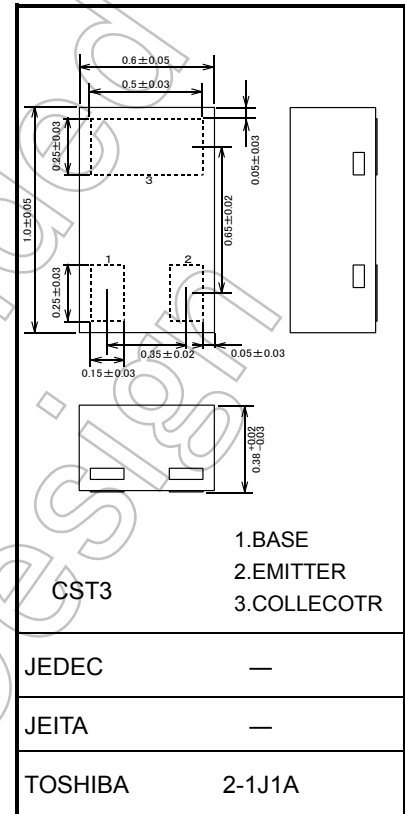
Characteristics	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	-50	V
Collector-emitter voltage	V _{CEO}	-50	V
Emitter-base voltage	V _{EBO}	-5	V
Collector current	I _C	-80	mA
Collector power dissipation	P _C (Note)	100	mW
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55 to 150	°C

Note: Mounted on FR4 board (10 mm × 10 mm × 1 mm)

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e.operatingtemperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Unit: mm



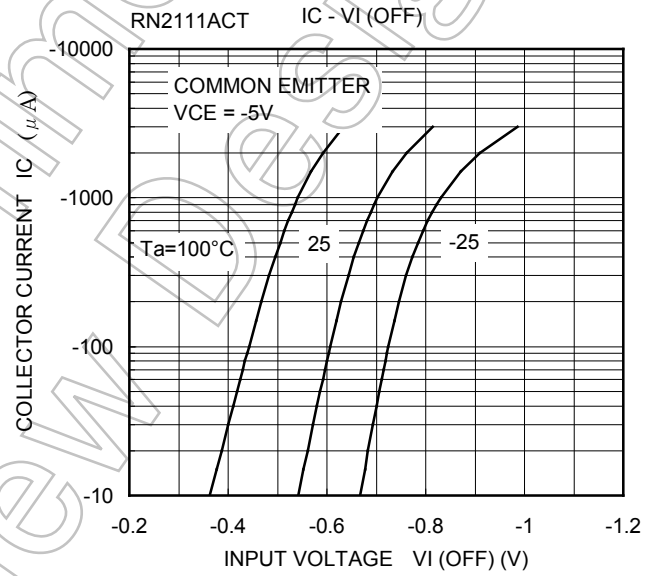
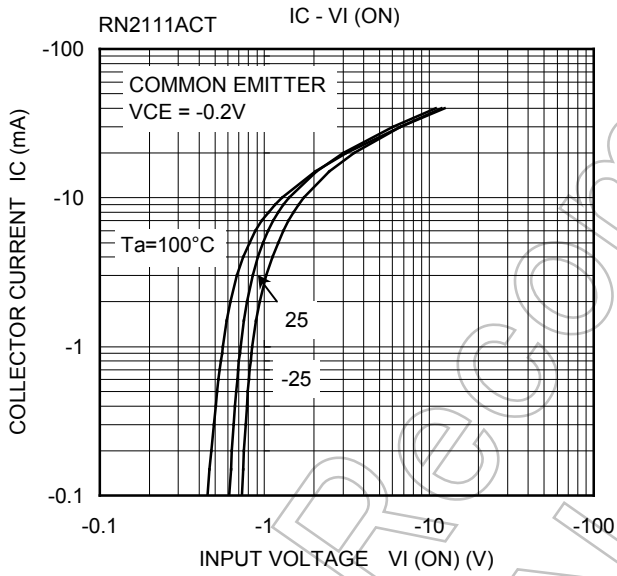
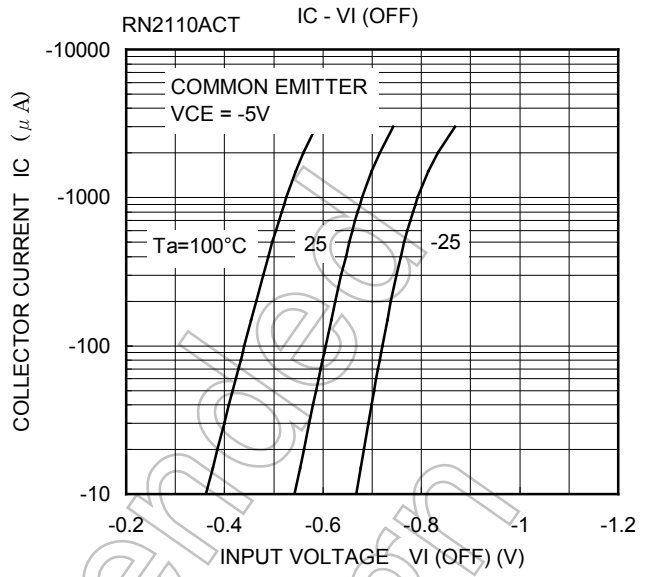
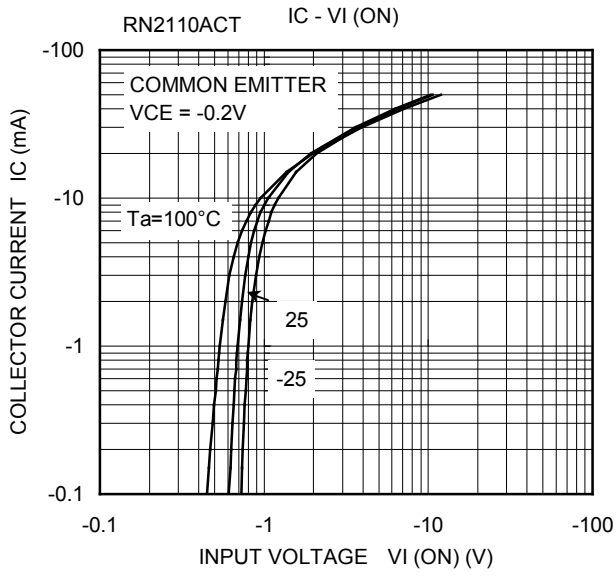
Weight: 0.75 mg (typ.)

Start of commercial production
 2004-08

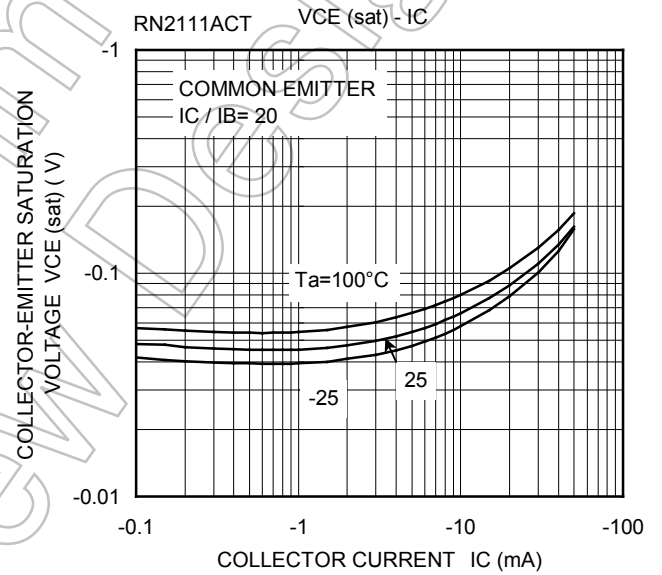
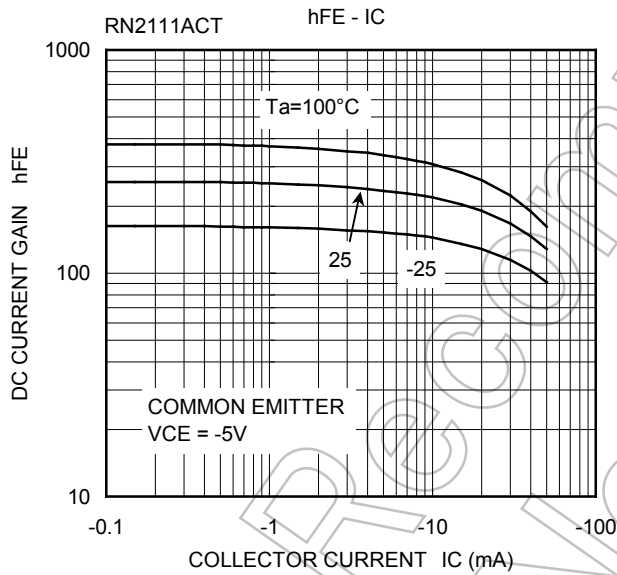
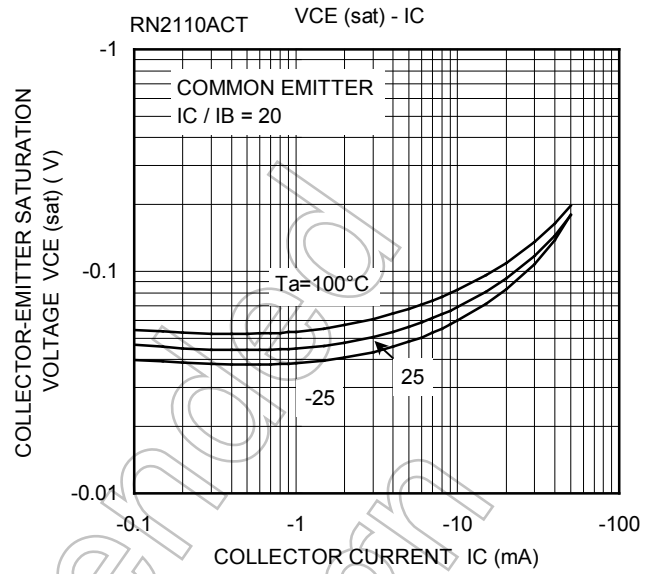
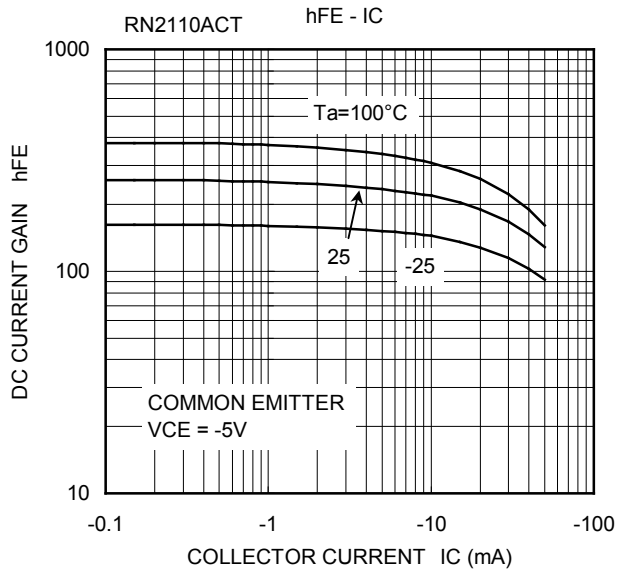
Electrical Characteristics (Ta = 25°C)

Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current		I_{CBO}	$V_{CB} = -50\text{ V}, I_E = 0$	—	—	-100	nA
Emitter cut-off current		I_{EBO}	$V_{EB} = -5\text{ V}, I_C = 0$	—	—	-100	nA
DC current gain		h_{FE}	$V_{CE} = -5\text{ V}, I_C = -1\text{ mA}$	120	—	400	
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}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	0.9	—	pF
Input resistor	RN2110ACT	R1	—	3.76	4.7	5.64	kΩ
	RN2111ACT			8	10	12	

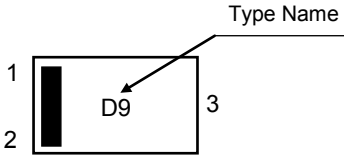
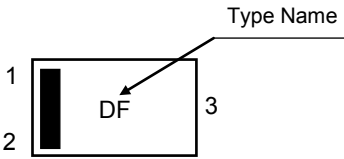
Not Recommended for New Design



Not for New



Not for New

Type Name	Marking
RN2110ACT	
RN2111ACT	

Not Recommended for New Design

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