$1.2 \pm 0.05$ 

0.8±0.05

TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

# **RN2131FV, RN2132FV**

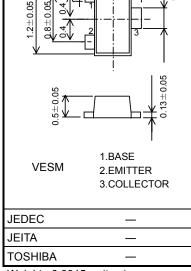
Switching, Inverter Circuit, Interface Circuit and Driver Circuit Applications

- With built-in bias resistors
- Simplify circuit design •
- Reduce a quantity of parts and manufacturing process
- Complementary to RN1131FV, RN1132FV

#### **Equivalent Circuit**

### Maximum Ratings (Ta = 25°C)

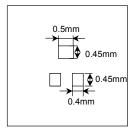
Characteristic	Symbol	Rating	Unit
Collector-base voltage	V <sub>CBO</sub>	-50	V
Collector-emitter voltage	V <sub>CEO</sub>	-50	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current	Ι <sub>C</sub>	-100	mA
Collector power dissipation	P <sub>C</sub>	150	mW
Junction temperature	Tj	150	°C
Storage temperature range	T <sub>stg</sub>	-55~150	°C



 $0.22 \pm 0.05$ 

c

Weight: 0.0015mg(typ.)



Note : Mounted on FR4 board (25.4 mm × 25.4 mm × 1.6 mmt)

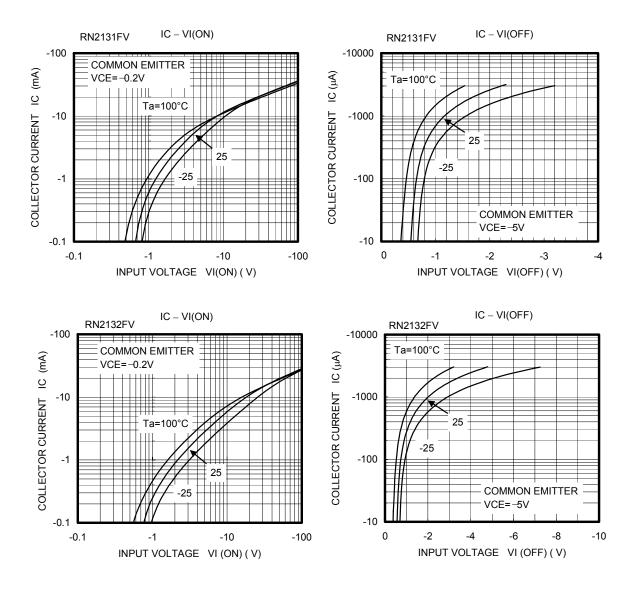
### Electrical Characteristics (Ta = 25°C)

Characteristic		Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current		I <sub>CBO</sub>	—	$V_{CB} = -50V, I_E = 0$	—	_	-100	nA
Emitter cut-off current		I <sub>EBO</sub>	_	$V_{EB} = -5V, I_C = 0$	_	_	-100	nA
DC current gain		h <sub>FE</sub>	—	$V_{CE}$ = -5V, I <sub>C</sub> = -1mA	120	_	400	
Collector-emitter saturation voltage		V <sub>CE (sat)</sub>	—	$I_{C}$ = -5mA, $I_{B}$ = -0.25mA	—	-0.1	-0.3	V
Transition frequency		f <sub>T</sub>	—	$V_{CE} = -10V, I_C = -5mA$	—	200	—	MHz
Collector output capacitance		C <sub>ob</sub>	—	$V_{CB}$ = -10V, I <sub>E</sub> = 0, f = 1MH <sub>z</sub>	_	3	—	pF
Input resistor	RN2131FV	R1 —			70	100	130	kΩ
	RN2132FV				140	200	260	

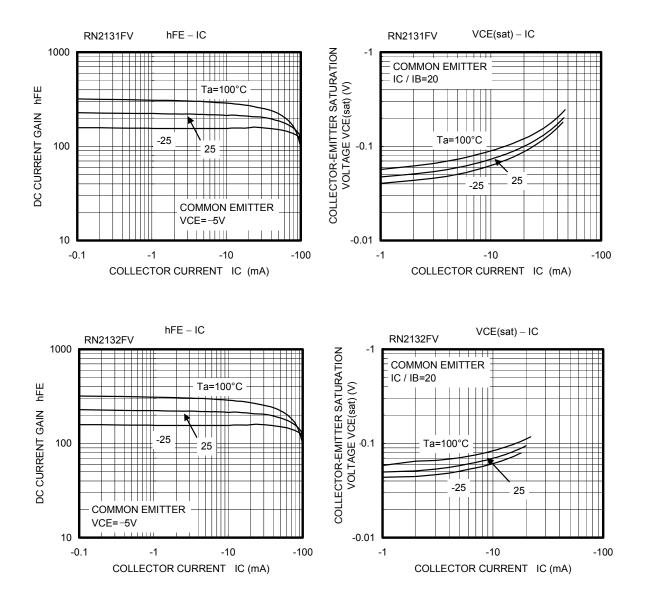
Unit : mm

0.32±0.05

### **TOSHIBA**



### TOSHIBA



## **TOSHIBA**

Type Name	Marking	
RN2131FV	Type Name Y 3	
RN2132FV	Type Name Y 4	

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