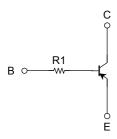
TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT process) (Bias Resistor built-in Transistor)

# **RN2910FE,RN2911FE**

Switching, Inverter Circuit, Interface Circuit and Driver Circuit Applications.

- Two devices are incorporated into an Extreme-Super-Mini (6 pin) package.
- 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 RN1910FE, RN1911FE

#### **Equivalent Circuit and Bias Resistor Values**

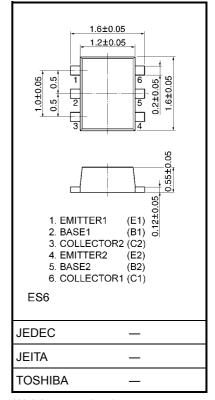


### Maximum Ratings (Ta = 25°C) (Q1, Q2 common)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-50	V
Collector-emitter voltage	V <sub>CEO</sub>	-50	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current	IC	-100	mA
Collector power dissipation	P <sub>C</sub> (Note)	100	mW
Junction temperature	Tj	150	°C
Storage temperature range	T <sub>stg</sub>	-55~150	°C

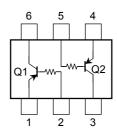
Note: Total rating

Unit: mm



Weight: g (typ.)

# Equivalent Circuit (top view)

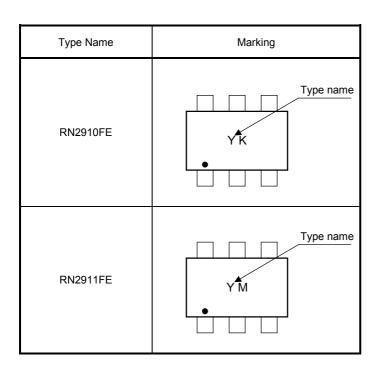




## Electrical Characteristics (Ta = 25°C) (Q1, Q2 common)

Characteristics		Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current		I <sub>CBO</sub>	$V_{CB} = -50 \text{ V}, I_E = 0$	_	_	-100	nA
Emitter cut-off current		I <sub>EBO</sub>	$V_{EB} = -5 \text{ V}, I_{C} = 0$	_	_	-100	nA
DC current gain		h <sub>FE</sub>	$V_{CE} = -5 \text{ V}, I_{C} = -1 \text{ mA}$	120	_	400	
Collector-emitter saturation voltage		V <sub>CE</sub> (sat)	$I_C = -5 \text{ mA}, I_B = -0.25 \text{ mA}$	_	-0.1	-0.3	V
Transition frequency		f <sub>T</sub>	$V_{CE} = -10 \text{ V}, I_{C} = -5 \text{ mA}$	_	200	_	MHz
Collector output capacitance		C <sub>ob</sub>	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$	_	3	6	pF
Input resistor	RN2910FE	- R1	_	3.29	4.7	6.11	kΩ
	RN2911FE			7	10	13	

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