

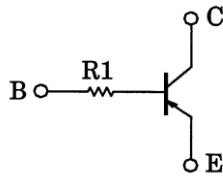
TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process) (Bias Resistor built-in Transistor)

RN2610

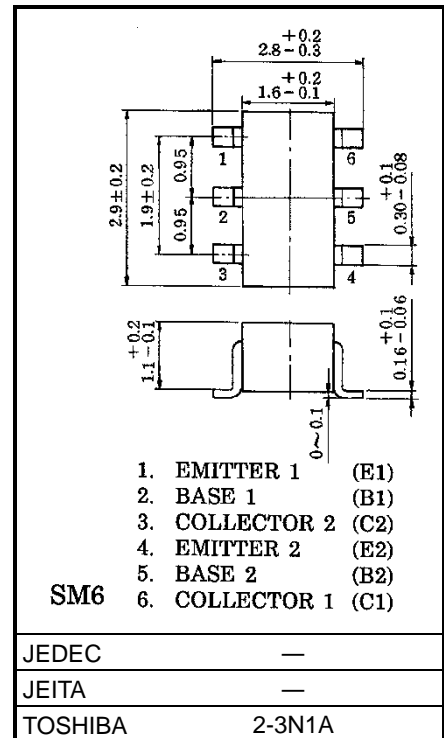
Switching, Inverter Circuit,
Interface Circuit and Driver Circuit

- Including twodevices in SM6 (super mini type with 6 leads)
- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process and miniaturize equipment.
- Various resistance values are available to suit various circuit designs.
- Complementary to RN1610

Equivalent Circuit



Unit: mm



Weight: 15 mg (typ.)

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

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	-50	V
Collector-emitter voltage	V _{CEO}	-50	V
Emitter-base voltage	V _{EBO}	-5	V
Collector current	I _C	-100	mA
Collector power dissipation	P _C *	300	mW
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55 to 150	°C

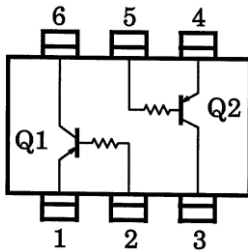
Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.)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

* Total rating

Start of commercial production
1988-11

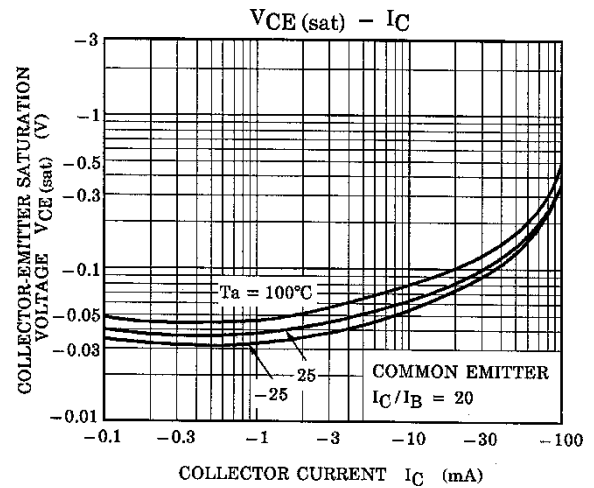
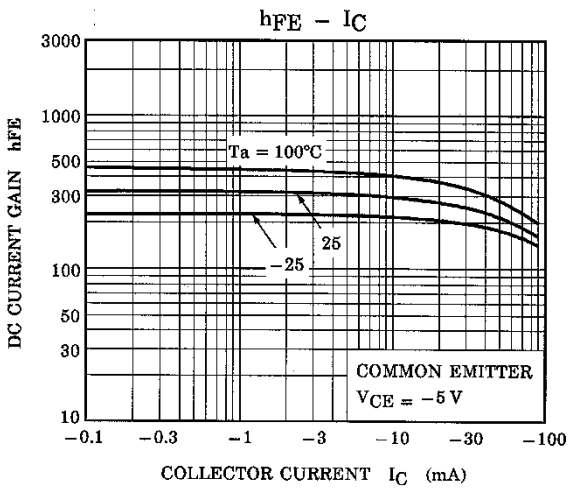
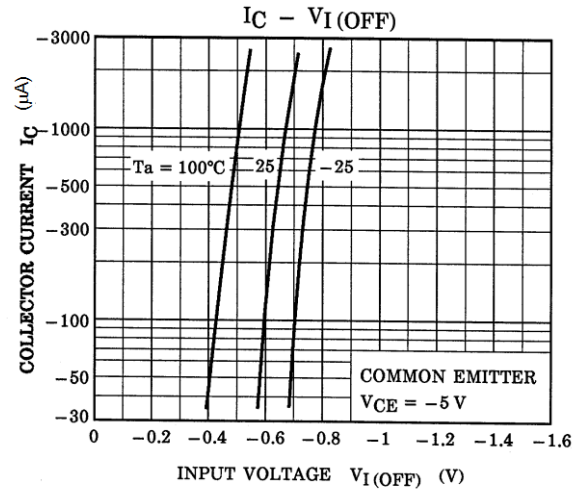
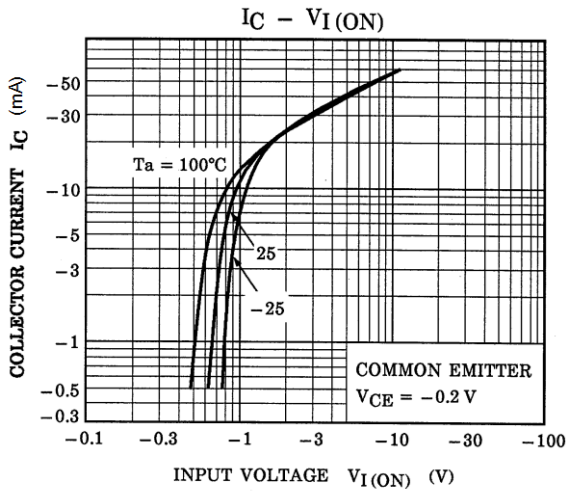
Equivalent Circuit (top view)



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

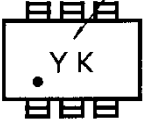
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = -50\text{ V}$, $I_E = 0\text{ mA}$	—	—	-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{ V}$, $I_C = 0\text{ mA}$	—	—	-100	nA
DC current gain	h_{FE}	$V_{CE} = -5\text{ V}$, $I_C = -1\text{ mA}$	120	—	400	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -5\text{ mA}$, $I_B = -0.25\text{ mA}$	—	-0.1	-0.3	V
Transition frequency	f_T	$V_{CE} = -10\text{ V}$, $I_C = -5\text{ mA}$	—	200	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}$, $I_E = 0\text{ mA}$, $f = 1\text{ MHz}$	—	3	6	pF
Input resistance	R_1	—	3.29	4.7	6.11	kΩ

Characteristics curves (Q1, Q2 Common)



The above characteristics curves are presented for reference only and not guaranteed by production test, unless otherwise noted.

Marking

Part No	Marking
RN2610	<p data-bbox="571 293 831 315">Part No.(abbreviation code)</p> 

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