RT5N230C

Transistor With Resistor
For Switching Application
Silicon NPN Epitaxial Type

DESCRIPTION

RT5N230C is a one chip transistor with built-in bias resistor, PNP type is RT5P230C.

FEATURE

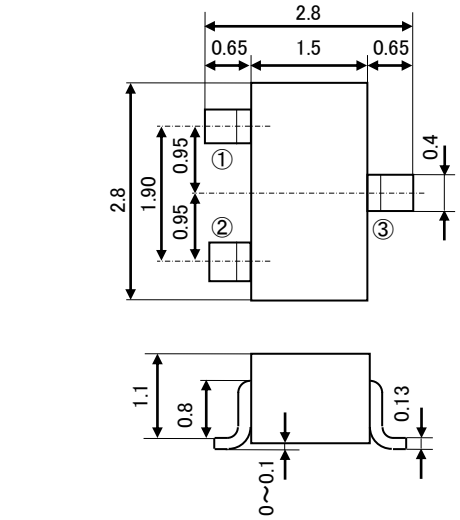
Built-in bias resistor （R_1=2.2kΩ）
High collector current （Ic=0.5A）
Mini package for easy mounting

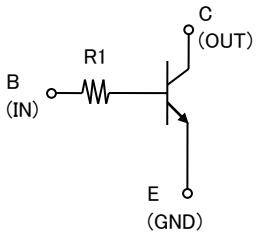
APPLICATION

Inverted circuit, Switching circuit, Interface circuit, Driver circuit

OUTLINE DRAWING

Unit: mm



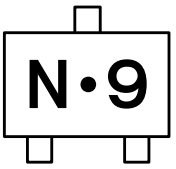


JEITA：SC-59
JEDEC：Similar to TO-236
Terminal Connector
①：BASE
②：EMITTER
③：COLLECTOR

MAXIMUM RATING (Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	50	V
V_{EBO}	Emitter to Base voltage	5	V
V_{CEO}	Collector to Emitter voltage	50	V
I_C	Collector current	500	mA
P_C	Collector dissipation(Ta=25℃)	200	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	-55～+150	℃

MARKING

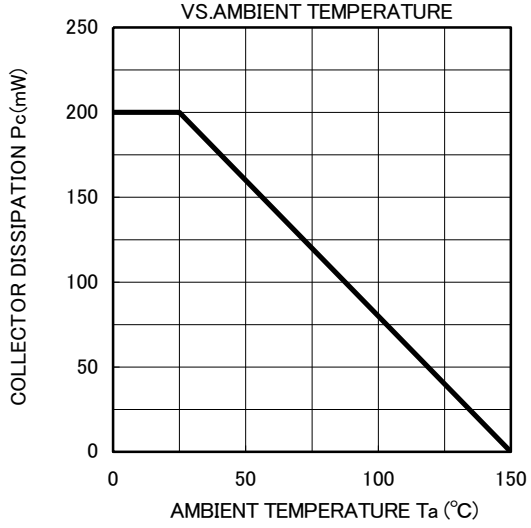


ELECTRICAL CHARACTERISTICS (Ta=25℃)

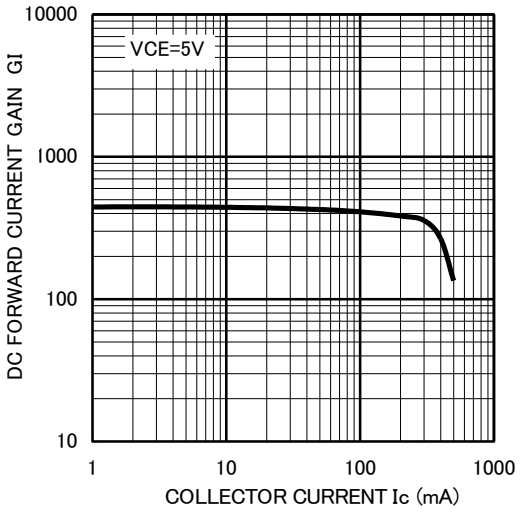
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
V_{CBO}	C to B breakdown voltage	I_C=50μA	50	—	—	V
V_{CEO}	C to E breakdown voltage	I_C=1mA	50	—	—	V
V_{EBO}	E to B breakdown voltage	I_E=50μA	5	—	—	V
I_{CBO}	Collector cut off current	V_{CB}=50V	—	—	0.5	μA
I_{EBO}	Emitter cut off current	V_{EB}=4V	—	—	0.5	μA
$V_{CE(sat)}$	C to E saturation voltage	I_C=50mA, I_B=2.5mA	—	—	0.3	V
G_I	DC forward current gain	V_{CE}=5V, I_C=50mA	100	250	600	—
R_1	Input resistance	—	1.54	2.2	2.86	kΩ
f_T	Gain band width product	V_{CE}=10V, I_E=-50mA, f=100MHz	—	200	—	MHz

TYPICAL CHARACTERISTICS(Ta=25°C)

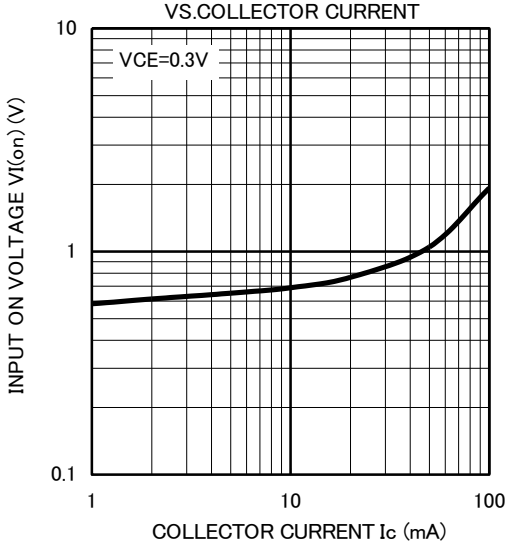
COLLECTOR DISSIPATION
VS.AMBIENT TEMPERATURE



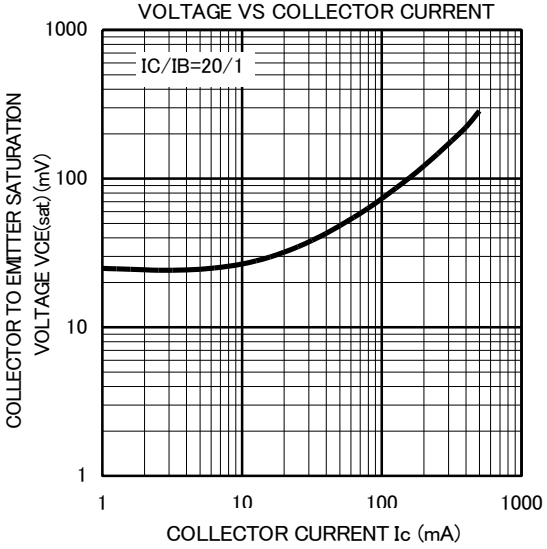
DC FORWARD CURRENT GAIN
VS.COLLECTOR CURRENT



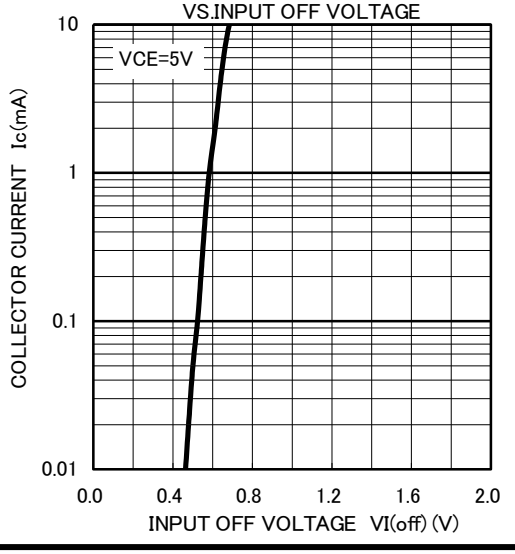
INPUT ON VOLTAGE
VS.COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION
VOLTAGE VS COLLECTOR CURRENT



COLLECTOR CURRENT
VS.INPUT OFF VOLTAGE



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