

RT5P333C

Transistor With Resistor
For Switching Application
Silicon PNP Epitaxial Type

DESCRIPTION

RT5P333C is a one chip transistor with built-in bias resistor.

FEATURE

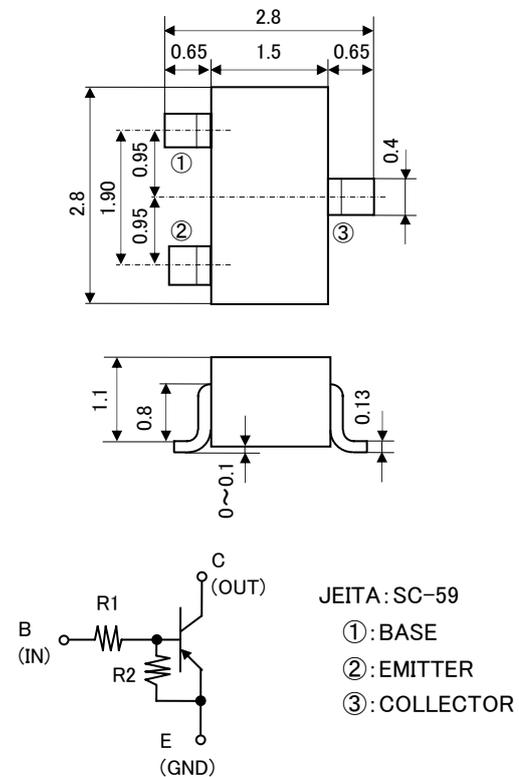
Built-in bias resistor ($R_1=3.3k\Omega$, $R_2=10k\Omega$)
High collector current ($I_c=-0.5A$)
Mini package for easy mounting

APPLICATION

Inverted circuit, Switching circuit, Interface circuit,
Driver circuit

OUTLINE DRAWING

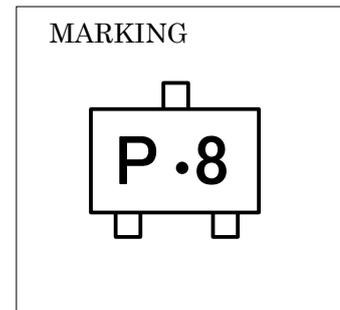
Unit: mm



MAXIMUM RATING ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	-50	V
V_{EBO}	Emitter to Base voltage	-6	V
V_{IN}	Input voltage	-20	V
V_{CEO}	Collector to Emitter voltage	-50	V
I_C	Collector current	-500	mA
P_C	Collector dissipation($T_a=25^\circ\text{C}$)	200	mW
T_j	Junction temperature	+150	$^\circ\text{C}$
T_{stg}	Storage temperature	-55~+150	$^\circ\text{C}$

MARKING



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

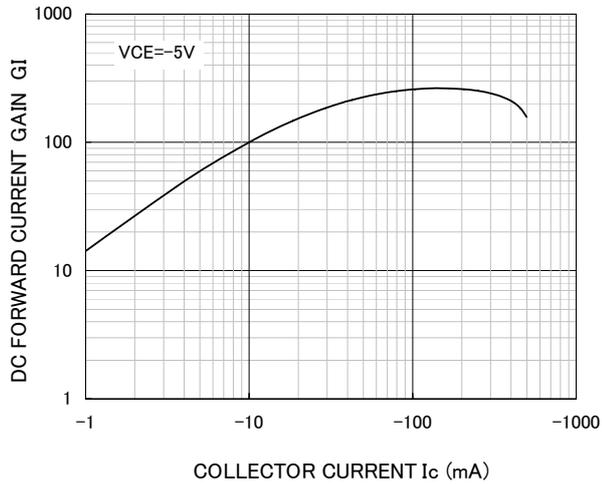
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
$V_{I(on)}$	Input on voltage	$V_{CE}=-0.3V$, $I_C=-20mA$	—	—	-2	V
$V_{I(off)}$	Input off voltage	$V_{CE}=-5V$, $I_C=-100\mu A$	-0.3	—	—	V
$V_{CE(sat)}$	C to E saturation voltage	$I_C=-50mA$, $I_B=-2.5mA$	—	-0.1	-0.3	V
I_{BE}	B to E current	$V_{BE}=-5V$	—	—	-2.4	mA
I_{CES}	Collector cut off current	$V_{CE}=-50V$, $V_{BE}=0V$	—	—	-0.5	μA
G_I	DC forward current gain	$V_{CE}=-5V$, $I_C=-50mA$	56	—	—	—
R_1	Input resistor	—	2.31	3.3	4.29	$k\Omega$
R_2/R_1	Resistor ratio	—	2.4	3.0	3.7	—
f_T	Gain band width product	$V_{CE}=-10V$, $I_E=5mA$, $f=100MHz$	—	150	—	MHz

RT5P333C

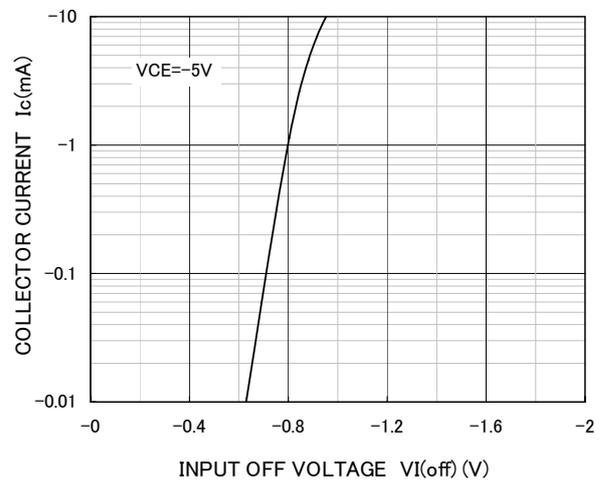
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TYPICAL CHARACTERISTICS

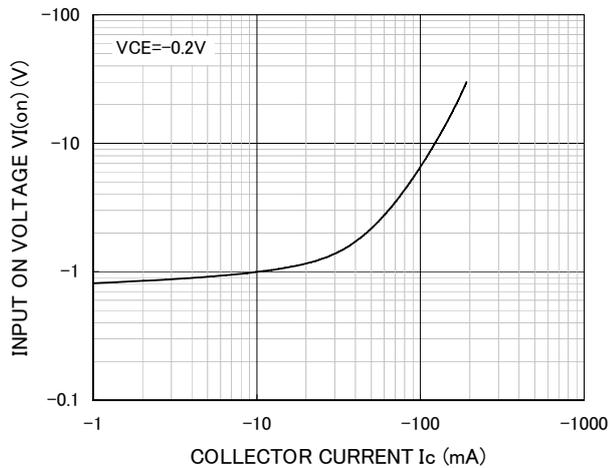
DC FORWARD CURRENT GAIN
VS.COLLECTOR CURRENT



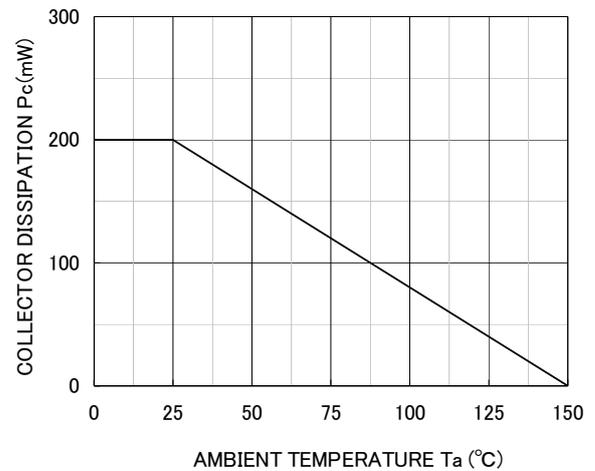
COLLECTOR CURRENT
VS.INPUT OFF VOLTAGE



INPUT ON VOLTAGE
VS.COLLECTOR CURRENT



COLLECTOR DISSIPATION
VS.AMBIENT TEMPERATURE





Keep safety first in your circuit designs!

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