RT5P431C-T150

Transistor With Resistor
For Switching Application
Silicon PNP Epitaxial Type

AEC-Q101 Compliance

DESCRIPTION

RT5P431C is a one chip transistor with built-in bias resistor.

FEATURE

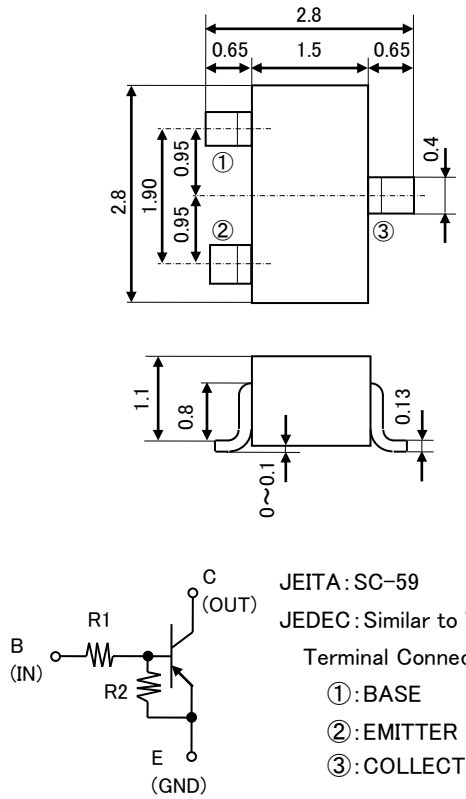
Built-in bias resistor （R_1=4.7kΩ, R_2=4.7kΩ）
High collector current （Ic=-0.5A）
Mini package for easy mounting

APPLICATION

Inverted circuit, Switching circuit, Interface circuit, Driver circuit

OUTLINE DRAWING

Unit: mm

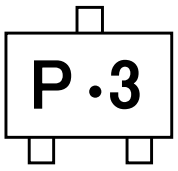


JEITA : SC-59
JEDEC : Similar to TO-236
Terminal Connector
①: BASE
②: EMITTER
③: COLLECTOR

MAXIMUM RATING (Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	-50	V
V_{EBO}	Emitter to Base voltage	-10	V
V_{CEO}	Collector to Emitter voltage	-50	V
V_{IN}	Input voltage	-30	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

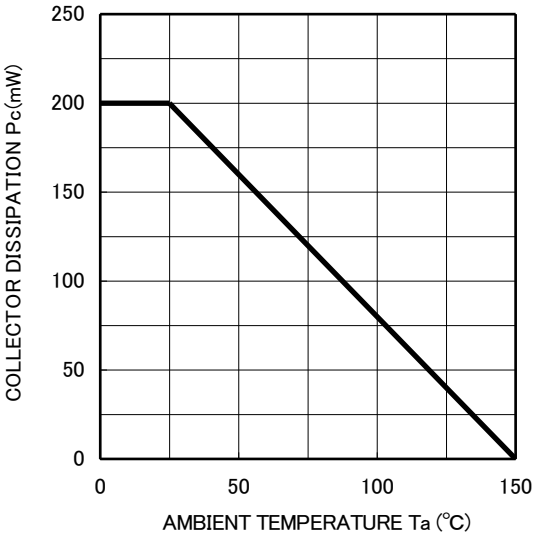


ELECTRICAL CHARACTERISTICS (Ta=25℃)

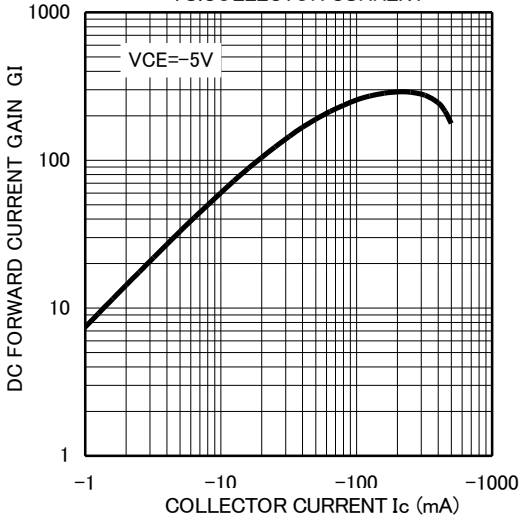
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
$V_{I(on)}$	Input on voltage	V_{CE}=-0.3V, I_C=-20mA	—	—	-3	V
$V_{I(off)}$	Input off voltage	V_{CE}=-5V, I_C=-100μA	-0.5	—	—	V
$V_{CE(sat)}$	C to E saturation voltage	I_C=-50mA, I_B=-2.5mA	—	—	-0.3	V
I_{BE}	B to E current	V_{BE}=-5V	—	—	-1.8	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	47	—	—	—
R_1	Input resistor	—	3.29	4.7	6.11	kΩ
R_2/R_1	Resistor ratio	—	0.8	1.0	1.2	—
f_T	Gain band width product	V_{CE}=-10V, I_E=5mA, f=100MHz	—	150	—	MHz

TYPICAL CHARACTERISTICS (Ta=25℃)

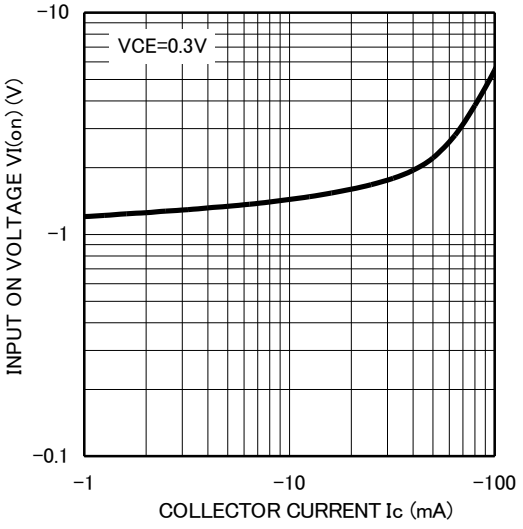
COLLECTOR DISSIPATION
VS.AMBIENT TEMPERATURE



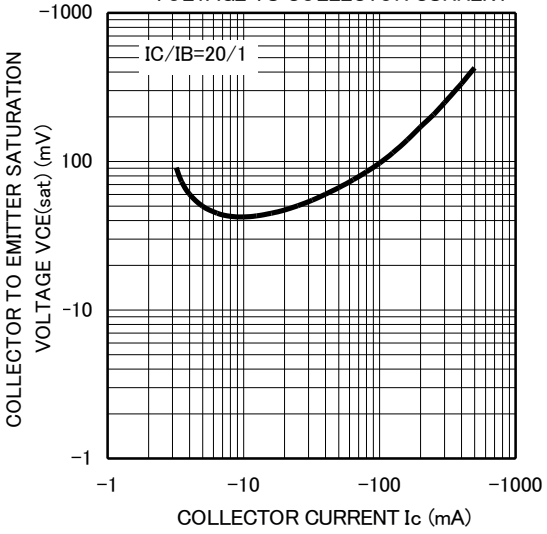
DC FORWARD CURRENT GAIN
VS.COLLECTOR CURRENT



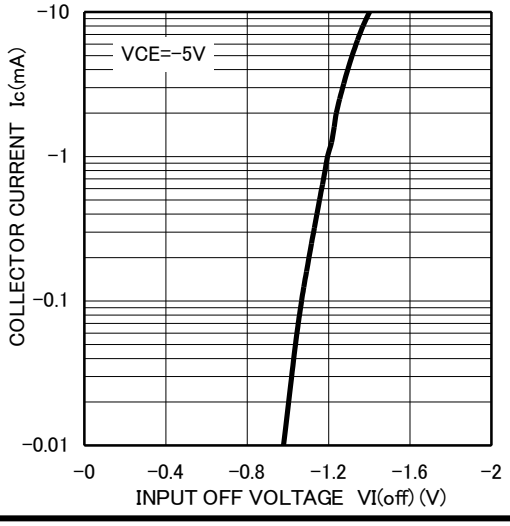
INPUT ON VOLTAGE
VS.COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION
VOLTAGE VS COLLECTOR CURRENT



COLLECTOR CURRENT
VS.INPUT OFF VOLTAGE



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