

RT5N141C

Transistor With Resistor
For Switching Application
Silicon NPN Epitaxial Type

DESCRIPTION

RT5N141C is a one chip transistor with built-in bias resistor.

FEATURE

Built-in bias resistor ($R_1=10k$, $R_2=10k$)

High collector current ($I_c=0.5A$)

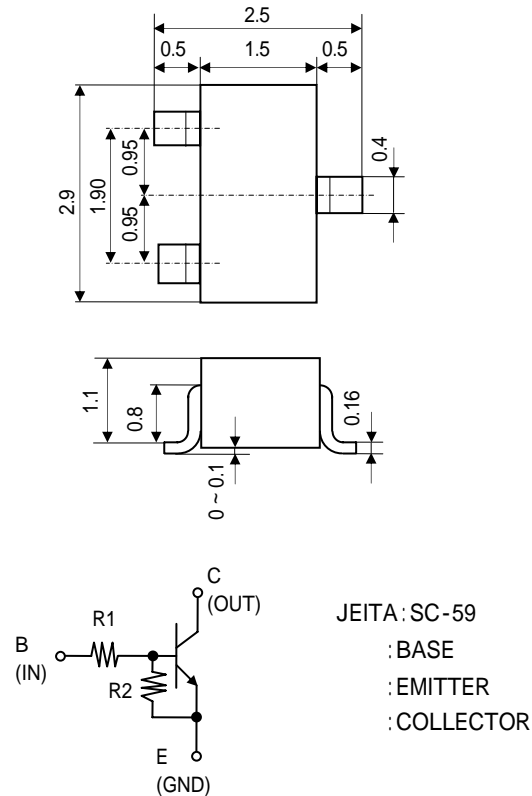
Mini package for easy mounting

APPLICATION

Inverted circuit, Switching circuit, Interface circuit,
Driver circuit

OUTLINE DRAWING

Unit: mm



MAXIMUM RATING (Ta=25)

SYMBOL	PARAMETER	RATING		UNIT
V_{CBO}	Collector to Base voltage	50		V
V_{EBO}	Emitter to Base voltage	-10	40	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



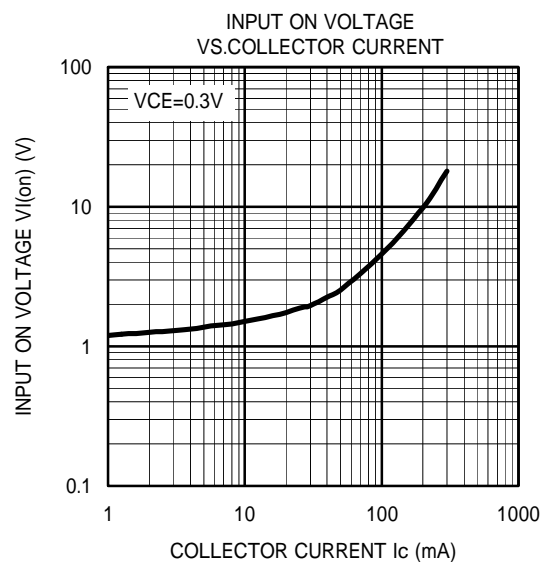
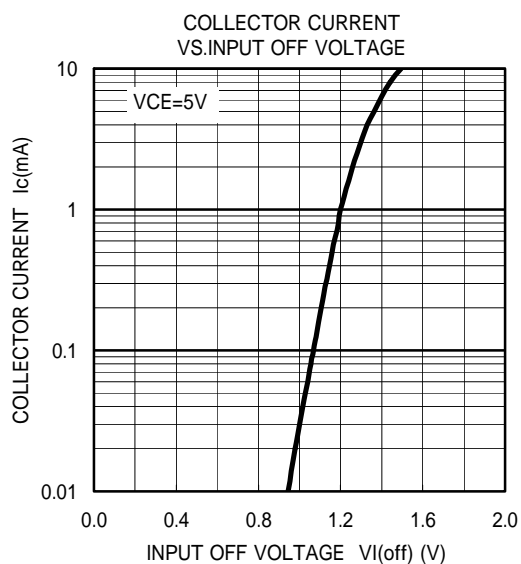
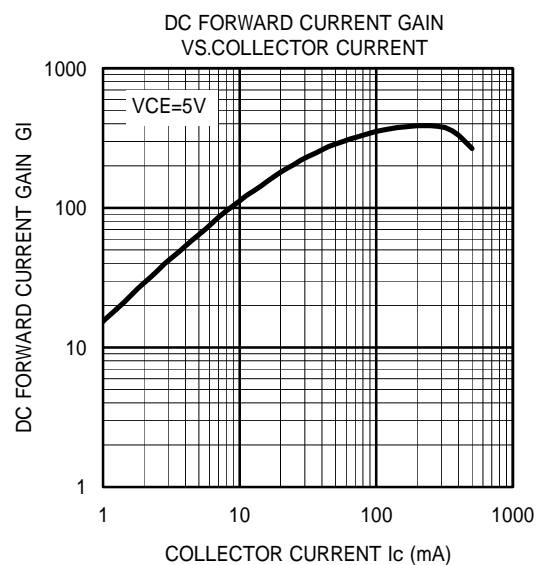
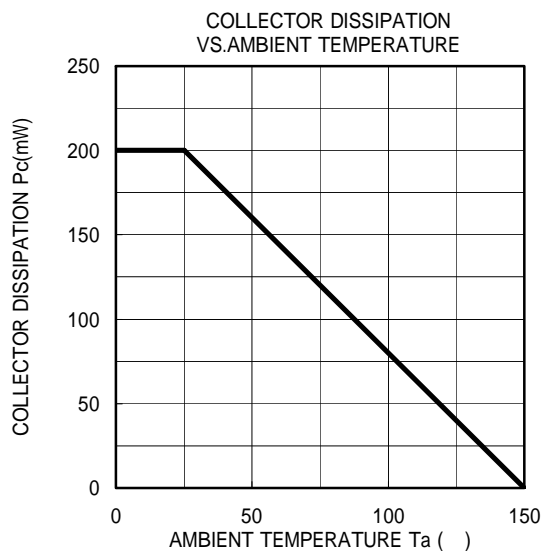
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ELECTRICAL CHARACTERISTICS (Ta=25 °C)

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
$V_{I(on)}$	Input on voltage	$V_{CE}=0.3V, I_C=10mA$			3	V
$V_{I(off)}$	Input off voltage	$V_{CE}=5V, I_C=100\mu A$	0.5			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	$V_{EB}=5V$			0.88	mA
I_{CES}	Collector cut off current	$V_{CE}=50V, V_{BE}=0V$			0.5	μA
G_1	DC forward current gain	$V_{CE}=5V, I_E=50mA$	56			
R_1	Input resistor		7	10	13	k
R_2/R_1	Resistor ratio		0.8	1	1.2	
f_T	Gain band width product	$V_{CE}=10V, I_E=-5mA, f=100MHz$		200		MHz

TYPICAL CHARACTERISTICS





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